

~~2007~~*2014*
**ROAD and BRIDGE
SPECIFICATIONS
COVER**

INSIDE COVER

TITLE PAGE

INTRODUCTION

These Road and Bridge Specifications are standard for all contracts awarded by the Commonwealth Transportation Board or the Commissioner. The requirements stated herein may be revised or amended from time to time but only to the extent permitted under supplemental specifications, special provisions and special provision copied notes included in the specific contract.

Reference by date and title will be made to these Specifications on plans and other contract documents as notification of their application to those documents. Copies of these Specifications may be obtained from the office of the Contract Engineer at 1401 E. Broad Street, Richmond, Virginia 23219.

~~Malcolm T. Kerley~~ *Garrett W.*
Moore, P.E.
Chief Engineer

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DIVISION I GENERAL PROVISIONS

SECTION 101—DEFINITIONS OF ABBREVIATIONS, ACRONYMS, AND TERMS

101.01—Abbreviations and Acronyms

In these Specifications and other Contract Documents, the following abbreviations and acronyms shall be interpreted as follows:

AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
ABS	Acrylonitrilebutadienestyrene (an elastomer)
AC	Alternating current
ACI	American Concrete Institute
ADT	Annual average daily traffic
AED	Associated Equipment Distributors
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
APA	Engineered Wood Association
API	American Petroleum Institute; American Pipe Institute
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American wire gage
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
BOCA	Building Officials and Code Administrators
C	Celsius, when preceded by "degree(s)"
CABB	Contractor Advertisement Bulletin Board
CBR	California bearing ratio
CRSI	Concrete Reinforcing Steel Institute
DBE	Disadvantaged Business Enterprise
DC	Direct current
DHV	Design hourly volume
EEI	Edison Electric Institute
EEO	Equal employment opportunity
EIA	Electronic Industries Alliance
EPA	Environmental Protection Agency
EPDM	Ethylenepropylenedienemonomer (an elastomer)
ESCCC	Erosion and Sediment Control Contractor Certification
F	Fahrenheit, when preceded by "degree(s)"
F/A	Filler/asphalt ratio
FHWA	Federal Highway Administration
FS	Federal Specifications, General Services Administration
ICEA	Insulated Cable Engineers Association
IMSA	International Municipal Signal Association

ITE	Institute of Transportation Engineers
LCD	Liquid crystal display
LPG	Liquid petroleum gas
MBE	Minority Business Enterprise
MEKP	Methyl ethyl ketone peroxide
MIL	Military specifications
MSDS	Materials Safety Data Sheet
MUTCD	Manual on Uniform Traffic Control Devices for Streets and Highways and the Virginia supplement to same
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NIST	National Institute of Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
NRC	Nuclear Regulatory Commission
PCI	Precast / Prestressed Concrete Institute
PE	Polyethylene
PTL	Plywood Testing Laboratory
PVC	Polyvinylchloride
PVF	Polyvinylfluoride
SAE	Society of Automotive Engineers
SP	Special Provision
SPCN	Special Provision Copied Note
SPIB	Southern Pine Inspection Bureau
<i>SS</i>	<i>Supplemental Specification</i>
SSPC	Society for Protective Coatings
SWPPP	Storm Water Pollution Prevention Plan
TAPPI	Technical Association of the Pulp and Paper Industry
TFE	Polytetrafluoroethylene
TIE	Ticket Information Exchange (Miss Utility)
UL	Underwriters' Laboratories, Inc.
VAC	Volts alternating current
VDC	Volts direct current
VDOT	Virginia Department of Transportation
VEP	Value engineering proposal
VFA	Voids filled with asphalt
VMA	Voids in mineral aggregate
VOSH	Virginia Occupational Safety and Health
VTM	Virginia Test Methods; voids in total mix
VWAPM	Virginia Work Area Protection Manual
WBE	Women Business Enterprise

101.02—Terms

In these Specifications and other Contract Documents, the following terms and pronouns used in place of them shall be interpreted as follows:

-A-

Actual Costs. *Direct, project-specific costs the Contractor incurs in the performance of the Work, consisting of labor, material, ownership cost or invoiced rental rates of equipment, and job-site general and administrative overhead.*

Adjustment. *An increase or decrease in the Contract amount or in the Contract time, unless the context dictates otherwise.*

Advertisement, Notice of. A public announcement, as required by law, inviting bids for work to be performed or materials to be furnished that indicates *among other terms and conditions* approximate ~~principal~~ quantities *of work to be performed*, location of work to be performed, character and quantity of materials to be furnished, and time and place for opening bids.

Affiliate. Any business entity that is closely associated to another business entity so that one has the power to control the other either directly or indirectly; or, where one business entity systematically shares resources, officers and/or other management with another business entity to the extent that a business relationship legally exists or is publicly perceived to exist; or, when a third party has the power to control both; or, where one business entity has been so closely allied with another through an established course of dealings, including but not limited to the lending of financial wherewithal or engaging in joint ventures, so as to cause a public perception that the two firms are one entity.

Alkali soil. Soil in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent based on total solids.

Award. The decision of the Board or Commissioner to accept the bid of the lowest responsive and responsible bidder for the ~~work~~ *Work*. The award *of the Contract* is subject to the execution and approval of a satisfactory Contract ~~therefor~~ *for the Work*, and such *other approvals and* conditions as may be specified or required by law.

Award date. The date on which the decision is made by the Board or Commissioner to accept the bid of the lowest responsive and responsible bidder.

-B-

Backfill. Material used to replace or the act of replacing material removed during construction; may also denote material placed or the act of placing material adjacent to structures.

Balance point. The approximate point, based on estimated shrinkage or swell, where the quantity of earthwork excavation and borrow, if required, is equal to the quantity of embankment material plus any surplus excavation material.

Base course. A layer of material of specified thickness on which the intermediate or surface course is placed.

Base flood. The flood or tide having a one percent chance of being exceeded in any given year.

Bid. The offer of a bidder, submitted by electronic proposal (or on paper if so specified in the ~~proposal~~*Proposal*) to perform the ~~work~~*Work* and furnish the materials, *equipment* and labor at the prices set forth therein; valid only when properly signed and guaranteed.

Bidder. Any individual, partnership, corporation, or joint venture that formally submits a bid for the work contemplated, or for any portion thereof, acting directly or through a duly authorized representative.

Bids, Invitation for. See **Advertisement, Notice of.**

Board. Commonwealth Transportation Board.

Borrow. Suitable material not available from designated Regular Excavation or other sources of useable materials on-site that is used primarily for embankment.

Brackish water. Water in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent based on total solids.

Bridge. A structure, including supports, that is erected over a depression or an obstruction, such as water, a highway, or a railway, that has a track or passageway for carrying traffic.

Bridge lift. A layer of fill material placed in excess of standard depth over an area that does not support the weight of hauling equipment and for which compaction effort is not required.

***Business.** Any corporation, partnership, limited liability company, joint venture, firm, association, individual or sole proprietorship operated for profit.*

-C-

Calendar day. Any day shown on the calendar, *including Saturday and Sunday, beginning at 12:01 a.m. and ending at midnight.*

Camber. A vertical curvature induced or fabricated into beams or girders and a deck slab or slab span formwork; a vertical curvature set in the grade line of a pipe culvert to accommodate differential settlement.

***Change Order.** A written order (Form C-10) signed by the Engineer to incorporate changes, alterations or other modifications into the Contract. A change order may be used to add, modify, or delete: pay items, Contract time, Contract Documents, or other terms of the Contract. Change orders may be issued on a bilateral or unilateral basis. The term change order means bilateral change order, except where the change order is designated or understood from the context as being a unilateral change order.*

***Bilateral Change Order.** A written change order signed by both the Engineer and the Contractor where the Engineer and Contractor agree upon the scope, the cost and the time estimation for the proposed change, alteration or other modification to the Contract. Form C-10 shall be used to modify the contract to include the approved change. This type of change order is what is typically meant when the term change order is used elsewhere in Department publications.*

***Unilateral Change Order.** A written change order signed only by the Engineer used to effect a change, alteration or other modification to the Contract when the Engineer and the Contractor cannot agree upon the scope, the cost or the time estimation of the proposed change, alteration or other modification to the Contract or where due to issues of emergency,*

safety, environmental damage, other similar critical factors the Department must act quickly and unilaterally to effect the change. In these cases, the Department must act unilaterally to establish a scope, cost or time adjustment for, the change, alteration or other modification to the Contract. Form C-10 shall be used to modify the contract to include the approved change.

Channel. A watercourse or drainage way.

Claim. *The Contractor's written request or demand for an adjustment to the Contractor's compensation or to the Contract time, for costs, expenses or other damages, or for any entitlement available under the Contract, made within the time, in the form, and pursuant to the provisions for claims specified in the Contract Documents.*

Commissioner. ~~Commonwealth~~*The Chief Executive Officer of the Virginia Department of Transportation, whose full title is the Commissioner of Highways or as otherwise designated by the Code of Virginia.*

Commonwealth. ~~Commonwealth~~*Commonwealth of Virginia.*

Completion Date or Fixed Completion Date. *The date specified in the Contract (Form C-7) when the Contractor must achieve Final Completion.*

Completion, Final. *When all of the Work under the Contract has been satisfactorily completed and the project is in condition for final acceptance. The Engineer will determine Final Completion after inspection of the Work.*

Completion, Substantial. *When a specified portion of the Work is satisfactorily completed according to the Contract. The Engineer will determine Substantial Completion after inspection of the Work.*

Composite hydrograph. A graph showing the mean daily discharge versus the calendar day, indicating trends in high and low flow for a one-year period.

Construction area. The area where authorized construction occurs.

Construction limits (On-Site). The disturbed area required for the construction of a Project including the intersection of side slopes, with the original ground, plus slope rounding and slopes for drainage ditches, bridges, culverts, channels, temporary or incidental construction, and identified by the surface planes as shown and/or described within the Contract Documents.

Contract. The *entire* written agreement executed *by and* between the Department and the Contractor that sets forth the obligations of the parties thereunder, including, but not limited to, the performance of the ~~work~~*Work*, furnishing of materials and labor, and the method of measurement and basis of payment of the work, as identified in the Contract Documents.- *Oral agreements, representations or promises will not be considered a part of the Contract.*

Contract Documents. ~~The edition of the Road and Bridge Specifications cited in the Bid Proposal and Contract, which include addenda or Revisions issued prior to the Bid Date, the Supplemental Specifications, Special Provisions, Special Provision Copied Notes, the Plans, the Edition of the Road and Bridge Standard Drawings cited on the title sheet of the plans which include Addendum's or Revisions issued prior to the Bid Date, Change Orders and/or Work Orders issued subsequent to the Contract Execution date and Written Directives, Agreements or Clarification. Oral representations or promises will not be considered a part of the Contract.~~

Contract item.

Contract Amount. *The sum stated as the bid total in the executed Proposal (Form C-7), as adjusted according to the Contract.*

Contract Documents. *The documents specified in Section § 103.06 that make up the Contract.*

Contract Engineer. *See State Construction Contract Engineer.*

Contract execution date. *The date on which the Contract is signed by the Chief Engineer.*

Contract item, bid item, or pay item. *A specifically described unit of work for which a price is provided in the Contract-Contract's Schedule of Items.*

Contract time limit. *The number of calendar days or fixed calendar date or that specifies the time allowed in the Contract for final completion of the work described in the Contract Work, including all authorized time extensions, beginning on the notice to proceed date and ending at the Contract time limit.*

Contract time limit. *The date, whether set by a number of calendar days or fixed calendar date for final completion of the Work prescribed in the Contract, including all authorized time extensions.*

Contractor. *Any individual, partnership, corporation, or joint venture that contracts The business that has a direct contract with the Department, which is in writing and signed by the Engineer, to perform the prescribed work Work as an independent contractor and not as an agent for the Department, the Commissioner or Commonwealth Transportation the Board.*

Controlling item of work. *See Critical Path Work.*

Corporation. *A body of persons granted a charter legally to conduct business recognizing them as a separate business entity having its own rights, privileges, and liabilities distinct from those organized and existing under the laws of the Commonwealth or other jurisdiction, by virtue of articles of its members incorporation, amendment or merger.*

Critical Activity. *Any activity on the critical path.*

Critical Path. *The longest continuous sequence of work or chain of activities throughout the project that defines the overall time needed to complete the project.*

Critical Path Work. *Any work on the critical path. A delay to any critical path work is expected to delay completion of the project.*

Cul-de-sac. *An area at the terminus of a dead-end street or road that is constructed for the purpose of allowing vehicles to turn around.*

Culvert. *A structure that is not classified as a bridge which provides an opening under any roadway.*

Cut. *When used as a noun with reference to earthwork, that portion of a roadway formed by excavating below the existing surface of the earth and limited by design or the direction of the Engineer.*

Cut Slope. *See also Fill Slope. A surface plane generally designated by design or the direction of the Engineer which is formed during excavation below existing ground elevations that intersects with existing ground at its termini.*

-D-

Day. ~~Unless~~ *A Calendar Day, unless specifically stated otherwise stated, a calendar day.*

Deflection. The vertical movement occurring between the supports of a bridge superstructure or its components (beams, girders, and slabs) that results from their own weight and from dead and live loads. Although all parts of a structure are subject to deflections, usually only those deflections that occur in the superstructure are of significance during construction.

Department. Virginia Department of Transportation.

Design flood. The magnitude of flood that a given structure can convey without exceeding a designated flood level.

Digital Identification (I.D.). An encrypted signature that is the legal equivalent of a written signature thus allowing for the digital signing of the bid.

Disincentive. ~~A verifiable~~ *If provided for in the Contract, an agreed monetary deterrent used sum that the Department deducts from compensation due or to discourage become due the Contractor from failing to meet if a contract specified milestone and/or the contract time limit that is identified and defined not satisfactorily completed and accepted by specific Contract language, the Department on or before the specified milestone date.*

Disposable material. Material generally found to be unsuitable for roadway construction or *surplus* material that is ~~surplus~~ *to be placed in a disposal area, unless specified otherwise.*

Disposal areas. Areas generally located outside of the Construction Limits identified in the Contract Documents where unsuitable or surplus material is deposited.

Disqualification. *The suspension or revocation of a bidder's prequalification privileges.*

Drainage ditch. An artificial depression constructed to carry off surface water.

-E-

Earthwork. The work consisting of constructing roadway earthwork in conformity with the specified tolerances for the lines, grades, typical sections, and cross sections shown on the plans or as established by the Engineer. Earthwork shall include regular, borrow, undercut and minor structure excavation; constructing embankments; disposing of surplus and unsuitable material; shaping; grading, compaction; sloping; dressing; and temporary erosion control work.

Easement (Right of way). A grant of the right to use property for a specific use.

Embankment. A structure of soil, soil aggregate, soil-like materials, or broken rock between the existing ground and subgrade.

Employee. Any person working on the project ~~specified in the Contract~~ who is under the direction or control of or receives compensation from the Contractor or subcontractor *at any tier.*

Engineer. The Chief Engineer, as designated by the ~~Commonwealth Transportation~~ Commissioner, who acts directly or through his duly authorized representative(s) and who is responsible for highway design, construction, and maintenance. The Engineer, ~~or~~ *and* his representative(s), ~~acts~~ *act* within the scope of the particular duties ~~assigned to him~~ or the authority given to ~~him~~ *them* by the Code of

Virginia, the ~~Commonwealth Transportation Commissioner~~, these Specifications, ~~supplemental specifications~~, and the Contract Documents.

Engineer, Contract. ~~The Chief Engineer's authorized representative for administering the advertisement of work, receiving bids for such , and awarding such work as contracts for the Department.~~

Equipment. Machinery, tools, and other apparatus, together with the necessary supplies for upkeep and maintenance, that are necessary for acceptable completion of the work.

Excavation (Excavate). The act of creating a man-made cavity in the existing soil for the removal of material necessary to obtain a specific elevation or to install a structure, material, component or item necessary to complete a specific task or form a final surface or subsurface.

Execution date. ~~The date on which the contract is signed by the Chief Engineer.~~

Extra work. ~~An item of~~Any work that was not provided for *or included* in the Contract as awarded but ~~that~~*the Engineer determines* is ~~found to be~~ essential to the satisfactory fulfillment of the Contract within its intended scope and is identified in ~~a written~~*an* authorized ~~Work Order or Force Account directive~~*change order* for its execution subject to the limitations, exceptions and provisions in Sections 104.02 and 104.03 and 109.05. *Extra work does not include additional or increased quantities of any Contract item or other work that is provided for or included in the Contract.*

-F-

Falsework. A temporary framework used to support work in the process of constructing permanent structural units.

Federal agencies or officers. An agency or officer of the federal government and any agency or officer succeeding in accordance with the law to the powers, duties, jurisdictions, and authority of the agency or officer mentioned.

Fill Slope. See also Cut Slope. A surface plane formed during embankment above existing ground elevations that intersects with existing ground at its termini.

Final Acceptance. *Acceptance of the project after Final Completion of all the Work specified in the Contract, as determined by and contingent on a final inspection by the Engineer.*

Firm. A commercial partnership of two or more persons formed for the purpose of transacting business.

Flood frequency. A statistical average recurrence interval of floods of a given magnitude.

Force account work. ~~Prescribed work of a contractual status performed by the Contractor and compensated for as specified in Section 109.05. A Force Account agreement is made with the Contractor when neither the Engineer nor the Contractor can firmly establish an applicable estimate for the cost of the work, because the scope of the work is not defined or quantifiable at the time of discovery or start of execution. Force account is used when what is to be done is known, but the level of effort or quantity of materials that will be necessary to accomplish that task is unknown but will be determined as the work progresses. In these cases the rates for the labor, equipment, and materials to be used are agreed upon in advance, and daily records are kept by the Engineer in order to track the eligible expenditures. Extra work for which the Contractor is compensated as specified in Section 109.05 pursuant to an executed change order and an executed Force Account authorization (Form C-115).~~

Formwork. A temporary structure or mold used to retain the plastic or fluid concrete in its designated shape until it hardens. Formwork shall be designed to resist the fluid pressure exerted by plastic concrete and additional fluid pressure generated by vibration and temporary construction loads.

Frontage street or road. A local street or road auxiliary to and located on the side of a highway for service to abutting property and adjacent areas and control of access.

-G-

Gage. U.S. Standard Gage.

Grade separation. Any structure that provides a traveled way over or under another traveled way or over a body of water.

-H-

Highway. The entire right of way reserved for use in constructing or maintaining the roadway and its appurtenances.

Historical flood level. The highest flood level that is known to have occurred at a given location.

Holidays. The days specifically set forth in Section 108.02 or in the Contract Documents.

Hydrologic data sheet. A tabulation of hydrologic data for facilities conveying a 100-year discharge equal to or greater than 500 cubic feet per second.

-I-

Incentive. ~~A verifiable~~ *If provided for in the Contract, an agreed monetary amount used as a sum that the Department pays to encourage the Contractor to complete work prior to the if a specified milestone date is satisfactorily completed and accepted by the Department on or before the time limit specified in the Contract milestone date.*

Inspector. The Engineer's authorized representative who is assigned to make detailed inspections of the quality and quantity of the work and its conformance to the requirements and provisions of the Contract *for the sole benefit of the Department.*

Invert. The lowest point in the internal cross-section of a pipe or other drainage structure.

-J-K-

Joint venture. Two or more ~~individuals, partnerships, corporations, or combinations thereof~~ *businesses* that join together *in the nature of a partnership* for the purpose of bidding on and constructing a project, *for which they are all jointly and individually liable to the Department.*

-L-

Laboratory. The testing laboratory of the Department or any other testing laboratory that may be designated by provisions in the Contract or by the Engineer.

Liquidated damages. ~~Compensatory~~ *As used in Section 108.06, the agreed damages as set forth in the Contract, paid by the Contractor owes to the Department when the Contractor fails to complete the project within the time frame specified in the Contract time limit.* These damages include, but are not

limited to, additional costs associated with administration, engineering, supervision and inspection of the project, *and loss of use.*

-M-

Major Item. Any pay item specifically indicated as such in the *Schedule of Items included among the* Contract Documents.

Material. Any substance that is used in the ~~work~~*Work* specified in the Contract

Median. The portion of a divided highway that separates the traveled ways.

Milestone. *An event or a date that marks the start or completion of a specified portion of the Work. If provided for in the Contract, milestones are used to specify when the Work or a specified portion thereof must be completed in accordance with the Contract Documents. The Contract may provide for one or more of the following milestones:*

- 1. **Early Completion Milestone.** If provided for in the Contract, a date on or before which the Work or a specified portion thereof must be satisfactorily completed by the Contractor and accepted by the Department in order for the Contractor to receive the specified early completion incentive compensation, in accordance with the Contract Documents.*
- 2. **Interim Completion Milestone.** If provided for in the Contract, a date on or before which a specified portion of the Work must be satisfactory completed by the Contractor and accepted by the Department, in accordance with the Contract Documents.*
- 3. **Substantial Completion Milestone.** If provided for in the Contract, a date on or before which the Work or a specified portion thereof must be sufficiently complete in accordance with the Contract Documents so that the project or a portion thereof can be used for the purposes intended. At the point of substantial completion, the project shall be complete such that it can be safely and effectively used by the public without further delays, disruption, or impediments. For conventional bridge and highway work, substantial completion is typically the point at which all bridge deck, parapet, pavement structure, shoulder, permanent signing and markings, traffic barrier, and safety appurtenance work is complete. The Engineer will determine Substantial Completion after inspection of the Work.*

Minimum Plan Concept Project. *A project of a very limited scope and duration that requires few details to describe the proposed work.*

Minor Item. Any pay item that is not specified as being a Major Item in the Schedule of Items included among the Contract Documents.

-N-

Non-Contract item. Item(s) of work that is required to permit completion of the specified work in an acceptable manner, located within the Limits of Construction, but is not included in the Contract Documents and will be completed by others prior to or during the construction of the Project.

No Plan and Minimum Plan Concept Project. Generally a project of a very limited scope and duration ~~that requires few details~~*no plans* to describe proposed work.

Notice to Proceed. ~~The date of contract execution or a specified date identified as such and set forth in the Contract Documents on which~~ *Written notice to the Contractor may specifying when prosecution of the Work shall begin the work.*

-O-

Ordinary high water. A water elevation based on analysis of all daily high waters that will be exceeded approximately 25 percent of the time during any 12 month period.

~~**Overtopping flood.** The magnitude of flood that just overflows the traveled way at a given structure and/or on the approach traveled way of such structure.~~

-P-Q-

Pavement structure. The combination of select or stabilized materials, subbase, base, and surface courses, described in the Typical Pavement Section in the Plans that is placed on a subgrade to support the traffic load and distribute it to the roadbed.

~~**Pay item.** A specifically described unit of work for which a price is provided in the Contract.~~*See Contract item.*

Phase inspection. The inspection of work at predetermined stages in lieu of continuous inspection.

Plans. The approved project plans and profiles, which may include ~~Standard Drawings~~, *but are not limited to* survey data, typical sections, summaries, general notes, details, plan and profile views, cross-sections, special design drawings, computer output listings, supplemental drawings or exact reproductions thereof, and all subsequently approved revisions thereto –which show the location, character, dimensions, and details of the ~~work~~*Work* specified in the Contract.

~~**Prequalification.** The procedure used by the~~ *for qualifying a bidder to bid on* Department ~~to assure itself of the Contractor's ability to perform the work with attention to quality and safety including his experience~~*contracts specified* in similar work, and sufficiency of equipment to accomplish the work and that the Contractor's financial resources will permit financing the cost in accordance with ~~the~~*the Department's Rules Governing Prequalification Privileges-, which are available on the Department's website at: www.virginiadot.org/business/const/prequal.asp.*

Profile grade. The line of a vertical plane intersecting the top surface of the proposed wearing surface, usually along the longitudinal centerline of the roadbed.

~~**Project.** The total scope~~*designated section of highway, roadway or property including all* work ~~specified to be performed in~~*according to* the Contract Documents.

Project showing. The scheduled event at which the Department's representative meets with prospective bidders to describe and answer questions regarding the proposed work.

~~**Proposal: (Bid Proposal).** The document provided by~~*documents* the Department ~~to prospective bidders or personally obtained by prospective bidders that describes~~*designates in the work*~~Notice of Advertisement for Bids that contain the project requirements and other information upon which bids will be accepted which~~*based. The Proposal includes the plans, Specifications, Special Provisions, Supplemental Specifications, referenced Standards, addenda, revisions, all other documents referred to therein, whether or not attached, and the* electronic forms on which the Department requires bids to be submitted ~~for the work described.~~

-R-

Ramp. A connecting roadway between two highways or traveled ways or between two intersecting highways at a grade separation.

Right of way. A general term denoting *the Commonwealth's* land, property, or interest therein, usually in the form of a strip, that is acquired for or devoted to *a highway or other* transportation facilities—but is. *As used herein, the term does not mean to* denote the legal nature of *the Commonwealth's* ownership.

Road. A general term denoting a public way for purposes of vehicular travel including the entire area within the right of way; the entire area reserved for use in constructing or maintaining the roadway and its appurtenances.

Road and Bridge Specifications. ~~The specifications contained herein and generally recognized as the standard specifications for all contracts awarded by the Commonwealth Transportation Board or the Transportation Commissioner~~*See Specifications.*

Roadbed. The graded portion of a highway within the top and side slopes that is prepared as a foundation for the pavement structure and shoulders.

Roadbed material. The material below the subgrade in cuts, embankments, and embankment foundations that extends to a depth and width that affects the support of the pavement structure.

Roadside. A general term that denotes the area within the right of way that adjoins the outer edges of the roadway; extensive areas between the roadways of a divided highway.

Roadside development. Items that are necessary to complete a highway that provide for the preservation of landscape materials and features; rehabilitation and protection against erosion of areas disturbed by construction through placing seed, sod, mulch, and other ground covers; and such suitable plantings and other improvements as may increase the effectiveness, service life and enhance the appearance of the highway.

Roadway. The portion of a highway within the limits of construction and all structures, ditches, channels, and waterways which are necessary for the correct drainage thereof.

-S-

***Schedule Impact Analysis (SIA).** A process of analyzing a schedule to determine the impact of a change in the Work or condition, or delay event on the project schedule for the purposes of quantifying and apportioning the effects to the party responsible for the impact.*

***Schedule of Record (SOR).** The most recently accepted baseline progress schedule. Upon acceptance by the Engineer, the initial baseline progress schedule or a subsequently revised baseline progress schedule shall be the SOR. The SOR is the agreed, official and only baseline schedule with which all work required to complete the project will be planned and executed; and on which all subsequent schedule updates shall be based; and against which progress of the Work will be evaluated.*

Seawater. Water in which total alkali chlorides calculated as sodium chloride are more than 0.10 percent of total solids.

Select borrow. Borrow material that has specified physical characteristics.

Select material. ~~Material~~ Material obtained from roadway cuts, borrow areas, or commercial sources that is designated or reserved for use as a foundation for the subbase, subbase material, shoulder surfacing, or other specified purposes designated in the Contract Documents.

Shoulder. The portion of the roadway contiguous with the traveled way that is for the accommodation of stopped vehicles, emergency use, and lateral support of the base and surface courses.

Sidewalk. The portion of the roadway constructed primarily for the use of pedestrians.

Skew. The acute angle formed by the intersection of a line normal to the centerline of the roadway with a line parallel to the face of the abutments or, in the case of culverts, with the centerline of the culverts.

Special Provision (SP). ~~A document that sets forth specifications or requirements for a particular project that is not covered by the standard~~ *See Specifications.*

Special Provision Copied Note (SPCN). ~~A document that sets forth specific specifications or requirements, usually limited in scope, for a particular project~~ *See Specifications.*

Specialty Item. ~~A Contract item. An item of work designated as a "Specialty Item" in the proposal that is limited to work~~ *Proposal* that requires highly specialized knowledge, *abilities*, craftsmanship, or equipment ~~that is not ordinarily available in contracting organizations~~ *provided by contractors* prequalified to bid ~~and is on the Contract as a whole.~~ *Specialty Items are* usually limited to minor components of the overall Contract.

Specifications. A general term that includes all directions, provisions, and requirements ~~contained herein and those that may be added or adopted as supplemental specifications, special provisions, or special provision copied notes.~~ *All, which are necessary for the proper fulfillment of the Contract, that are contained in the following Contract Documents:*

***Road and Bridge Specifications.** The specifications applicable to all contracts awarded by the Commonwealth Transportation Board or Commissioner.*

***Special Provision (SP).** Specifications or requirements for a particular project that add to or modify the standard specifications.*

***Special Provision Copied Note (SPCN).** Specific specifications or requirements, usually limited in scope, for a particular project.*

***Supplemental Specifications (SS).** Additions and revisions to the Road and Bridge Specifications.*

Standard drawings. Unless otherwise specified, applicable drawings in the Department's Road and Bridge Standards and such other standard drawings as are referred to on the plans.

State. Commonwealth of Virginia.

***State Construction Contract Engineer.** The Chief Engineer's authorized representative for administering the Notice of Advertisement for Bids, receiving bids for such, and awarding contracts for the Department.*

Station. When used as a definition or term of measurement, 100 linear feet.

***Storm Sewer System.** A drainage system consisting of a series of at least two interconnecting pipes and structures (minimum of two drop inlets, manholes, junction boxes, etc.) designed to intercept and convey stormwater runoff from a specific storm event without surcharge.*

Street. A general term denoting a public way for purposes of vehicular travel including the entire area within the right of way; the entire right of way reserved for use in constructing or maintaining the roadway and its appurtenances.

Structures. Bridges, culverts, catch basins, inlets, retaining walls, cribs, manholes, end walls, buildings, steps, fences, sewers, service pipes, underdrains, foundation drains, and other features that may be encountered in the work and are not otherwise classed herein.

Subbase. A layer(s) of specified or selected material of designed thickness that is placed on a subgrade to support a base course.

~~**Subcontractor.** Any individual, partnership, corporation, or joint venture to which~~**Subcontract.** *A contract between the prime Contractor, with the written consent of the Department, subcontracts and any other business to perform part of the Contract subject to the requirements of the Contract Documents including, but not limited to, Sections 102.01 and 105.06.*

Subcontractor. *Any business that has a subcontract, including any business that provides on-site labor, but not any business that furnishes or supplies only materials or equipment for the Project.*

Subgrade. The top earthwork surface of a roadbed, prior to application of Select or Stabilized material courses, shaped to conform to the typical section on which the pavement structure and shoulders are constructed, or *the* surface that must receive an additional material layer, such as Topsoil, Stone or other Select Material.

Subgrade stabilization. The modification of roadbed soils by admixing with stabilizing or chemical agents that will increase the load bearing capacity, firmness, and resistance to weathering or displacement.

~~**Subletting. Subcontracting**~~

Sublet. *See Subcontract.*

Substructure. The part of a structure that is below the bearings of simple and continuous spans, skewbacks of arches, and tops of footings of rigid frames, together with the back walls, wingwalls, and wing protection railings.

~~**Superintendent.** The *Contractor's* Project representative of the Contractor who is authorized to receive and fulfill instructions from the Engineer and who supervises and directs the construction~~**Work on the Contractor's behalf.**

Superstructure. The portion of a structure that is ~~not defined as~~ *above the* substructure.

~~**Supplemental specifications.** Additions and revisions to the *Road and Bridge Specifications* identified~~**(SS).** *See Specifications.*

Supplier. *Any business who manufactures, fabricates, distributes, supplies or furnishes materials or equipment, but not on-site labor, for use in performing the Work on or for the project according to the requirements of the Contract Documents including, but not limited to, Sections 102 and 106.*

Surety. A ~~corporate entity~~*business* bound with and for the Contractor for full and complete fulfillment of the Contract and for payment of debts pertaining to the ~~work~~**Work**. When applied to the proposal guaranty, it refers to the ~~corporate body~~*business* that engages to be responsible in the execution by the bidder, within the specified time, of a satisfactory Contract and the furnishing of an acceptable payment and contract bond.

Surface course. One or more top layers of a pavement structure designed to accommodate the traffic load, which is designed to resist skidding, traffic abrasion, and disintegrating effects of weather. Also see wearing course.

Surplus material. Material that is present on a project as a result of unbalanced earthwork quantities, excessive swell, slides, undercutting, or other conditions beyond the control of the Contractor, *or is designated as surplus material in the Contract Documents.*

Suspension. A written notice issued by the Engineer to the Contractor that orders the ~~work~~*Work* on a project to be stopped wholly or in part as specified. The notice will include the reason for the suspension.

-T-

Temporary structure. Any structure that is required to maintain traffic while permanent structures or parts of structures specified in the Contract are constructed or reconstructed. The temporary structure shall include earth approaches.

Theoretical maximum density. The maximum compaction of materials that can be obtained in accordance with the values established VTM-1.

Tidewater, Virginia. Areas within the Commonwealth as defined in the Department of Conservation and Recreation Erosion and Sediment Control Manual.

***Time Impact Analysis (TIA).** A forward-looking, prospective schedule impact analysis method that adds a modeled delay to the current schedule in place at the time of a change or delay to determine the possible time impact of the change or delay to project completion.*

Ton. A short ton; 2,000 pounds avoirdupois.

Top of earthwork. The uppermost surface of the regular or embankment excavation, not including select material, that is shaped to conform to the typical section shown in the plans or directed by the Engineer.

Topsoil: The uppermost original layer of material that will support plant life and contains more than 5 percent organic material reasonably free from roots exceeding 1 inch in diameter, brush, stones larger than 3 inches in the largest dimension and toxic contaminants.

~~**Ton.** A short ton; 2,000 pounds avoirdupois.~~

~~**Top of earthwork.** The uppermost surface of the regular or embankment excavation, not including select material, that is shaped to conform to the typical section shown in the plans or directed by the Engineer.~~

Traveled way. The portion of the roadway for the movement of vehicles, not including shoulders.

-U-

Unsuitable Material. Any material which contains more than 5 percent by weight organic matter, or which has unstable bearing capacity, excessive moisture content, plasticity indexes or liquid indexes, or other characteristics defined by the Engineer or the Contract Documents as unsuitable for the use intended.

Utilities. Private, county, city, municipal or public facility, *structure or infrastructure*, designed, owned and maintained for public use; *or to provide a public service* such as electricity, water, sanitary sewer, storm sewer, drainage culverts, telecommunications, conduits, gas, oil, fiber optics, cable television, that is not identified as a Pavement Structure, Roadway, Highway, Street or Traveled Way.

-V-

Vouchered. The action of approval by the Department; constitutes the date of release to the State Comptroller for payment.

-W-X-Y-Z-

Wearing course. (See **Surface course**) The top and final layer of any pavement

Work. The furnishing of all materials, labor, tools, equipment, and incidentals necessary or convenient for the successful completion *and acceptance* of the project and the carrying out of the duties and obligations specified in the Contract.

Working drawings. Stress sheets, shop drawings, erection plans, falsework plans, framework plans, cofferdam plans, bending diagrams for reinforcing steel, or any other supplementary plans or similar data the Contractor is required to submit to the Engineer for review.

~~**Work Order.** A written agreement made between the Contractor and the Engineer in order to establish changes to the contract. A work order may be used to add, modify, or delete: pay items, contract time, or other terms of the contract. Work orders may be issued on a bilateral or unilateral basis.~~

~~**Work Order, Bilateral.** A written change order to the Contract where the Engineer and Contractor agree upon scope cost and time estimation for the proposed work. The process uses Form C 10 to perform, communicate and integrate the required and approved change. This type of work order is what is typically meant when the term *work order* is used elsewhere in Department publications.~~

~~**Work Order, Unilateral.** A written directive to the Contractor signed only by the Engineer used to effect a contract change when the Contractor and the Department cannot agree upon the cost and time estimation of the change or where due to issues of emergency, safety, environmental damage, other similar critical factors the Department must act quickly and unilaterally to effect the change. In these cases, the Department must act unilaterally to establish a cost or time adjustment for additional work to the Contract. The process uses Form C 10 to perform, communicate and integrate the required and approved change.~~

SECTION 102--BIDDING REQUIREMENTS AND CONDITIONS

102.01—Prequalification of Bidders

- (a) All prospective ~~contractors~~, *bidders, including all members of a joint ventures and subcontractors*, shall ~~prequalify~~ *be prequalified* with the Department and shall have received a certification of qualification in accordance with the Rules Governing Prequalification Privileges prior to bidding. ~~These rules and regulations can be found within the Department's Rules Governing Prequalification Privileges. This requirement may be waived by a Contract~~ *project-specific* provision. ~~Prequalification will not be required for items noted in the proposal as "Specialty Items."~~ *Proposal. The Rules Governing*

Prequalification Privileges may be found on the Department's website at www.virginia.gov/business/const/prequal.asp.

~~The names of persons authorized to sign bids shall be on file with the Department. A name will be considered to be on file if it appears as that of an officer, a partner, or an owner on the current Contractor's Prequalification Application. Requests by the bidder to revise the list of persons authorized to sign bids shall be submitted in writing and approved prior to the date bids are opened. A bid signed by someone whose name is not on file may be rejected.~~

~~A bidder who makes a false certification on the Bid will be subject to forfeiture of the bid bond or disqualification from bidding on future work for a 90 day period, or both.~~

All subcontractors shall be prequalified prior to performing any work on the Contract, except that prequalification will not be required for subcontractors only performing work items denoted in the Proposal as "Specialty Items", or the pay item is indicated as a waiver of prequalification, or the Contract Engineer declares the pay item is a Specialty Item.

In order to be eligible for SWaM or DBE credit, SWaM or DBE subcontractors must be VDOT prequalified and SWaM or DBE certified at the time of bid submission. The prequalification and certification status of a SWaM or DBE may affect the award of the Contract to the Contractor and the award of the subcontract to the SWaM or DBE at any point during the Contract.

When an individual is prequalified to bid jointly only with a specific company, the joint venture will be considered a unified entity for qualification purposes.

~~Bidders seeking new prequalification must complete and submit the prequalification package.~~

~~Bidders intending to submit bids consistently shall prequalify at least once each two years using the Prequalification Renewal Application. However, the maximum capacity rating or classification, or both, may be changed by the Department during that period if additional favorable reports are submitted or upon unsatisfactory performance as determined in accordance with the requirements of Section 108.03 or from the Contractor's performance evaluations or upon non performance as determined in accordance with the provisions of Section 108.07. The Department may require a Contractor to furnish a current financial and experience statement at any time.~~

- (b) ~~If prequalification is approved, prospective bidders will be placed on the Department's List of Prequalified Vendors. Bidders are~~ *bidders shall be* ~~subject to varying levels of prequalification as stated within the Rules Governing Prequalification Privileges. Bidders will be subject to removal from this list based on disqualification in accordance with the Specifications and Prequalification rules and regulations.~~

~~Unless otherwise stated, consideration for reinstatement to~~ *and removal from* ~~the Department's List of Prequalified Vendors will be made by the Contract Engineer~~ *in accordance with Section 102.08, the Rules Governing Prequalification Privileges and other applicable laws.*

102.02—Content of Proposal

- (a) **Standard Proposal** - ~~Upon request, the Department will furnish a proposal to any interested party. The proposal~~ *Proposal* ~~will specify the location~~ *of the proposed Work* and

~~include a description of the contemplated construction, the work. The description will include an estimate of the various quantities and kinds of work to be performed or materials to be furnished, and a schedule of items for which unit bid prices are invited. The proposal~~ *Proposal* will specify the *Contract* time in which the ~~work~~ *Work* shall be completed, and the date and time by which bids must be ~~filed~~ *submitted*. The ~~proposal~~ *Proposal* will also include any ~~applicable supplemental specifications, special provisions, Specifications, plans, attachments, revisions, addenda, and any other documents specified or special provision copied notes governing~~ *referenced in the proposed work Proposal. The Proposal will be considered a part of the bid.*

~~Attachments to the proposal will be considered a part of the bid. The plans, Specifications, and other documents specified in the proposal will be considered a part of the proposal.~~

- (b) **Combination or Conditional Proposals** - If the Department so elects, ~~proposals~~ *Proposals* may be issued for projects in combination or separately. Bids may be submitted for either the combination or separate units of the combination. The Department may make awards on combination bids or separate bids to its best advantage. Combination bids other than those set up in the ~~proposals~~ *Proposals* by the Department will not be considered. Conditional bids will be considered only when so stated in the ~~proposal~~ *Proposal*.

102.03—Interpretation of Quantities in Proposal

The quantities ~~appearing of work to be performed and materials to be furnished identified in the proposal~~ *Proposal* are approximate only, and ~~provide~~ *provided as* a basis for cost analysis, ~~and comparison.~~ The Contractor will be paid for the quantities of work accepted and materials furnished and correctly placed or installed ~~in accordance with~~ *according to* the requirements of the Contract. The ~~scheduled~~ quantities of work to be performed and materials to be furnished may *vary*, be increased, diminished, or ~~omitted~~ *eliminated*, as provided within ~~these Specifications. When payment of any item in the Contract is indicated to be on the basis~~ *Documents without invalidating the Contract amount. A variance, increase, decrease or elimination of plan* the quantities, ~~the in the Proposal will not be sufficient grounds for granting an increase in the bid price, except as specified for a significant change in Section 104.02. The Contractor will be paid in accordance with the requirements of according to Section 109.02.~~

~~In general, the bid proposal will indicate and other applicable provisions of the various utility items known to exist, will indicate items to be adjusted or improvements proposed by the respective owners and will designate any items that are to be adjusted by the Contractor.~~

~~Information contained in the bid proposal regarding utility locations is advisory only and shall not be construed as being a representation of completeness or accuracy. The bidder shall contact the owners of the various utilities to determine the exact location of the utilities and the owner's schedule of work. Unless otherwise noted, all utility adjustments will be performed by the Utility or its representative. The Contractor shall cooperate with the owners of any utilities in their adjustment operations. Prior to preparing a bid, the bidder shall contact known utility owners to determine the nature, extent, and location of existing, adjusted, or proposed new utility facilities within the areas of construction. It is understood and agreed that the Contractor has considered in his bid all of the permanent and temporary utility appurtenances in their present and relocated positions, any proposed utility capital improvements, and the Contractor has contacted the utility owner with regard to their proposed schedule of work. The Contractor shall include in his proposed schedule the amount of time to make utility adjustments, from time estimates furnished by the utility owners. Any costs associated with contacting, and coordinating with the utilities shall be reflected in the bid price for other items in the Contract~~ *Contract Documents.*

102.04—Examination of Site of Work and Proposal

(a) Evidence of Examination of Site of Work and Proposal

The submission of a bid will be considered conclusive evidence that *(1) the bidder has examined the site of the proposed work, the bid-proposal and other documents referenced therein, and the plans before submitting a bid and, (2) is satisfied as to the nature, character, qualities, quantities, and conditions to be encountered in performing the work and the requirements specified in the proposal, and (3) has taken all such matters into consideration when submitting the bid. A reasonable site investigation includes investigating the project site, borrow sites, disposal areas, hauling routes, and all other locations related to the performance of the Work.*

(b) Subsurface Data

When available, the Department may also make other subsurface data available for review in the office of the District Materials Engineer or State Materials Division Administrator or as stated elsewhere in the Proposal documents upon request. Data not included in the Proposal are not part of the Proposal, but are made available to the bidder in good faith to notify the bidder of information in possession of the Department.

When available, subsurface data may be included in the Proposal or may be made available for review by the bidder in the office of the District Materials Engineer or State Materials Division Administrator or as stated elsewhere in the proposal documents. Such data are accurate with regard to test holes and are made available to the bidder in good faith in order to apprise him of information in possession of the Department. Any conclusions drawn Unless stated otherwise in the Proposal, subsurface data provided or made available by the Department concerning subsurface conditions are based solely on the data and are merely indications shall not be part of what appear to be existing subsurface conditions. The Contract Documents. The Department does not warrant these the data or any conclusions to be correct drawn from the data, either expressly or by implication. Further, the Department does not warrant the condition, amount, or nature of the material that may be encountered or the sufficiency of the data, either expressly or by implication. The bidder shall make his own interpretation of the subsurface data that may be available and satisfy himself with regard to the nature, condition, and extent of the material to be excavated, graded, or driven through. The submission of a bid will be considered conclusive evidence that the bidder is satisfied with regard to the subsurface conditions to be encountered in the work and has taken such conditions into consideration when submitting the bid.

(c) Notice of Alleged Ambiguities, Conflicts, Errors or Omissions

If a bidder has any questions or doubts about a word, phrase, clause, specification, or any other portion of the proposal is alleged to be ambiguous, the Bidder Proposal or alleges an ambiguity, conflict, error, or omission, the bidder shall submit to a question about the State Contract Engineer a written notice of the alleged ambiguity, conflict, error, or omission not later than 10 days prior to the due date of receipt of bids and request an interpretation thereof. This written notice shall be submitted via the on the CABB (Contractor Advertisement Bulletin Board) system website located on the Construction website at [www.VDOT.Virginia.gov/http://cabb.virginiadot.org](http://cabb.virginiadot.org). Authorized interpretations will be issued by the State Construction Contract Engineer to each person who received a proposal Proposal, and will be posted on the CABB system. These questions, answers and statements from the CABB will be added to the contract as addenda.

The Department will not be responsible for any other explanations or interpretations of the alleged ambiguities ~~except those brought to the attention of and responded to by the State Contract Engineer. No employee or agent of the Department shall have the authority to furnish any explanation or interpretation, verbal or written, of alleged~~, *conflicts, errors or omissions*.

The bidder shall not take advantage of ambiguities that are not submitted to the Contract Engineer by the bidder.

, conflicts, errors, or omissions in the Proposal. If the bidder fails to give written notice submit a question on the CABB and request an interpretation of the alleged an obvious or apparent ambiguity, conflict, error, or omission within the specified time, he the bidder shall waive any right he it may have had to his its own interpretation of the alleged ambiguity. ambiguity, conflict, error, or omission. Further, if awarded the Contract the bidder waives any claims and shall not be entitled to any additional compensation or time, or entitled to sue the Department based on such ambiguity, conflict, error, or omission.

It is recognized that the bidder's review of the Proposal is made in the bidder's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents. The bidder is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations, but any nonconformity discovered by or made known to the bidder shall be reported promptly to the State Construction Contract Engineer.

(d) Utilities

In general, the Proposal will indicate the various utilities known to exist, any utilities to be adjusted, and any utility improvements proposed by the respective utility owners. The Proposal will designate any utilities that the Contractor is to adjust. Information contained in the Proposal regarding utilities is advisory only and shall not be construed as being complete or accurate. Prior to preparing a bid, the bidder shall contact the various utility owners to determine the nature, extent, and exact location of existing, adjusted, or proposed adjustments or new utilities within the areas of construction. The Department has no control over or any responsibility for utilities in or around the construction limits. The Department shall not be responsible for damage to existing utilities that is the result of negligence on the part of the contractor or mislocation of an existing utility by utility owner or their agent.

Unless otherwise noted, the various utility owners or their agents will perform all utility adjustments. The bidder shall contact the various utility owners to determine the owners' schedule for the utility adjustment operations. The Contractor shall coordinate and cooperate with the utility owners in their adjustment operations. The bidder understands and agrees that he has (1) considered in his bid all of the existing, adjusted, proposed, permanent and temporary utilities in their present and relocated positions, and any proposed utility capital improvements, and (2) contacted the utility owners with regard to their proposed schedule for their utility adjustment operations. The Contractor's schedule shall include the amount of time needed to make utility adjustments. Any costs associated with contacting, coordinating, and cooperating with the utility owners shall be included in the bid price for other items in the Contract if there is no pay item for utilities.

102.05—Preparation of Bid

(a) General

~~The names of persons authorized to sign bids shall be on file with the Department. A name will be considered to be on file if it appears as that of an officer, a partner, or an owner on the current Contractor's Prequalification Application. Requests by the bidder to revise the list of persons authorized to sign bids on their behalf shall be submitted in writing and approved prior to the date bids are opened. A bid signed by someone whose name is not on file as someone authorized by the bidder may be rejected.~~

~~If the bid is made by an individual, the name and address of the individual shall be shown; if by a partnership, its name and address and the name and title of the partner signing the bid shall be shown; if by a corporation, the name of the corporation, its address, and the name and title of the officer signing the bid shall be shown; if by a joint venture, the aforementioned information shall be shown for each party.~~

The bidder shall submit ~~his~~^{its} bid by approved electronic media, unless otherwise provided for in the ~~proposal~~. Bids shall be signed with a digital signature.

Proposal. The bidder shall furnish a unit or lump sum price as called for in the ~~bidding proposal~~^{Proposal}, in numerical figures, for each pay item listed. The bidder shall also show the products of the unit prices and quantities in numerical figures in the column provided for that purpose and the total amount of the bid.

If a unit or lump sum price is omitted, the bid will be rejected. If there is a discrepancy between the unit price and its extension, the unit price will govern.

In the event there is a discrepancy between the bidder's electronically generated ~~proposal~~^{Proposal} form and the official ~~proposal~~^{Proposal} form as furnished by the Department, the ~~Department proposal~~^{official Proposal} form will govern.

Bids will be considered irregular and may be rejected for any of the reasons stated in Section 102.06.

The ~~Bidder~~^{bidder} shall submit a proposal guaranty in accordance with the requirements of Section 102.07.

A bid ~~may~~^{will} be rejected and the ~~Bidder may be~~^{bidder} disqualified for any of the reasons stated in Section 102.08.

(b) Design Options

Except as otherwise specified in the ~~proposal~~^{Proposal}, when regular and alternate design options are shown in the ~~proposal~~^{Proposal}, the bidder shall submit a bid price for at least one design option. ~~The award of the Contract will be made on the basis of the lowest responsive and responsible bid submitted for either of the options.~~ The Department may award the Contract to the *responsive and responsible* bidder who submitted the lowest bid for the regular design option or the lowest bid for the alternate design option, whichever is deemed to be in the best interest of the Commonwealth.

(c) Debarred Suppliers

The bidder is cautioned against utilizing price quotes for materials for use in the preparation of bids from suppliers or vendors that are debarred by the Department. The Engineer will not approve for use any material furnished by a supplier debarred by the Department. The

bidder shall ascertain from the Department's listings which suppliers are debarred. Lists of approved suppliers can be found on the Department's Materials Division web site.

If a previously debarred supplier is reinstated to eligibility subsequent to the award of a contract, the Engineer may approve the use of the supplier when requested by the Contractor.

All bidders shall return Form No. C-48 listing all subcontractors/suppliers that were solicited to supply quotes for work on this project within 10 calendar days after the date designated in the proposal for the opening of bids. This form shall show the vendor numbers, legal names of subcontractors/suppliers, whether ~~DBE~~**SWaM** or ~~non-DBE~~, and utilization or non-utilization for work on this project.

(d) **Required Certifications**

A bidder who makes a false certification on the Bidder Certification of Prequalification Classification and Work Capacity Form will be subject to forfeiture of his ~~bid bond~~**proposal guaranty** or disqualification from bidding on future work for a 90-day period, or both. The State Contract Engineer will determine the imposition and extent of such sanctions.

A sworn statement shall be executed by the bidder or his agent ~~on behalf of each person, firm, association, or corporation submitting a bid. The statement shall certify that the person, firm, association, or corporation~~**certifying that the bidder** has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action to restrain free competitive bidding in connection with the ~~proposal~~**Proposal**. The sworn statement shall be part of the electronic bid or in the form of an affidavit furnished by the Department and shall be sworn to before a person who is authorized by the laws of the Commonwealth to administer oaths. The electronic bids shall contain the identical sworn statement. For the purpose of this Section, affixing a ~~digital~~**Digital** ID to the bid will be considered by the Department conditional evidence of signing before a person who is authorized by the laws of the Commonwealth to administer oaths.

(e) **Acknowledgement of Receipt of RevisionsAddenda**

The bidder shall acknowledge receipt of all ~~revisions~~**addenda** to the ~~bid~~**Proposal** documents issued prior to receipt of ~~bid~~**bids** by inserting the appropriate ~~Revision Letter~~**addendum** date(s) as part of ~~his~~**its** electronic bid submission. **Bidders are responsible for checking the Department's advertisement page (CABB website) for addenda to ensure that they have seen and considered all addenda before submitting a bid.** Failure ~~by the bidder to~~ acknowledge any ~~Revision Letter~~**addendum by inserting the addendum** date(s) with ~~his~~**in a** bid ~~may~~**will** result in the ~~bidder~~**bid** being considered ~~rejected as~~**non-responsive, his bid and irregular, and the bid being rejected.**

(f) **Signing the Bid**

~~The bid~~**Bids** shall be signed ~~by the individual, one or more members of a partnership, or one or more of the officers of a corporation, whichever is applicable, by~~**with** a digital identification. The names of persons authorized to sign bids shall be on file with the Department. ~~For a joint venture, the bid shall be signed by~~ **A name will be considered to be on file if it appears as that of an officer, a partner, a member, a manager or an owner on the current Contractor's Prequalification Application. Requests by the bidder to revise the individual identified** ~~list of persons authorized to sign bids on their behalf shall be submitted in writing and approved prior to receipt~~**the date bids are opened. Requests by the bidder to revise the list of persons authorized to sign bids shall be submitted in writing and approved**

prior to the date bids are opened. A bid signed by someone whose name is not on file as someone authorized by the bidder may be rejected. ~~bids, as representing the joint venture. If the individual signing the bid for a joint venture is not previously identified as representing a joint venture authorized to sign a bid, the firm of record is responsible for the bid.~~

102.06—Irregular Bids

Bids will be considered irregular and may be rejected for any of the following reasons:

- (a) ~~if the~~*The* bidder fails to comply with the requirements of Sections 102.05 and 102.07
- (b) ~~if the~~*The* bidder adds any provisions reserving the right to accept or reject an award or enter into a contract pursuant to an award except as otherwise permitted in these Specifications
- (c) ~~If the~~*The* bidder fails to provide Certification of Prequalification Classification and Work Capacity
- (d) ~~if the~~*The* bid is not properly signed
- (e) ~~if the~~*The* bidder fails to acknowledge a ~~Revision Letter~~ *all addenda to the Proposal documents by inserting the appropriate addendum date(s) as part of its electronic bid submission*
- (f) ~~if there~~*There* are unauthorized additions, conditional or alternate bids, or irregularities of any kind that may make the bid incomplete, indefinite, or ambiguous
- (g) ~~if the unit~~*The* prices in the bid are obviously *mathematically and materially* unbalanced, either in excess or below the cost analysis values as determined by the Department
- (h) ~~if the~~*The* bidder fails to submit a statement concerning collusion
- (i) ~~if bids are~~*The bid* submitted ~~showing a designation for~~ *identifies* a project ~~other~~ *different* than the project for which the bid is ~~made~~ *submitted*
- (j) ~~if a paper~~*The* bid is not totaled *or totaled incorrectly*
- (k) ~~if erasures~~*Erasures* or alterations in the bidder's entries on paper bids, when allowed, are not initialed by the bidder
- (l) ~~if any attachments~~*Attachments* included in the bid are detached or altered when the bid is submitted except as otherwise provided for herein
- (m) ~~failure~~*The bidder fails* to be registered *register* with "eVA Internet e-procurement solution" prior to the award of the Contract.
- (n) *The bidder, if required, fails to register with "E-Verify" program prior to the award of the Contract*
- (o) *The bidder, if required, fails to register or obtain authorization to transact business in Virginia from the State Corporation Commission prior to bidding*

102.07—Proposal Guaranty (*Bid Bond*)

A bid in excess of \$250,000.00 will ~~not be accepted or considered~~ *be rejected* unless accompanied by a *proposal* guaranty ~~in the form of (also known as a bid bond)~~ made payable to the ~~Treasurer~~ *Commonwealth* of Virginia. ~~A bid bond will be accepted only if, executed on the Department's form (Form C-24), or a form that contains the exact same wording as the Department's form furnished by the Department. Any bid accompanied by a bond having wording that differs in any respect from that furnished by the Department will be rejected.~~ The amount of the proposal guaranty shall be 5 percent of the total bid.

~~When the principal is a joint venture, each party thereof shall be named and shall execute the proposal guaranty. Each surety to the bid bond shall be named and shall execute the bid bond. The bid bond shall be accompanied by a certified copy of the power of attorney for the surety's attorney-in-fact.~~

When the principal is a joint venture, each member of the joint venture shall be named and shall execute the proposal guaranty. Each surety to the proposal guaranty shall be named and shall execute the proposal guaranty, and shall provide a certified copy of the power of attorney for the surety's attorney-in-fact.

102.08—Disqualification of Bidder

- (a) ~~Any of the following causes~~ *reasons set out in the Rules Governing Prequalification Privileges* may be considered sufficient for the disqualification of a bidder ~~and/or the rejection of his bid, or both.~~ *Such reasons for disqualification are not exclusive and disqualification may occur based on other requirements within these Specifications.*

- ~~(a) more~~ 1. *The bidder does not have sufficient financial ability to perform the Contract. If a bond is required to ensure performance of a contract, evidence that the bidder can acquire a surety bond from a corporation included on the United States Treasury list of acceptable surety corporations in the amount and type required by the public body shall be sufficient to establish the financial ability of the bidder to perform the Contract.*
2. *The bidder does not have appropriate experience to perform the project in question.*
3. *The bidder or any officer, director or owner thereof has had judgments entered against him within the past ten years for the breach of contracts for governmental or nongovernmental construction, including, but not limited to, competitive sealed bidding, design-build, or construction management.*
4. *The bidder has been in substantial noncompliance with the terms and conditions of prior construction contracts with the Department or any other public body without good cause. If the Department has not contracted with a bidder in any prior construction contracts, the Department may disqualify the bidder if it has been in substantial noncompliance with the terms and conditions of comparable construction contracts with another public body without good cause. The Department may utilize this provision to disqualify where the facts underlying such substantial noncompliance were documented in writing in the prior construction project file and such information relating thereto given to the bidder at that time, with the opportunity to respond.*
5. *The bidder or any officer, director, owner, project manager, procurement manager or chief financial official thereof has been convicted of, or pled guilty or nolo contendere*

- within the past 10 years to a crime related to governmental or nongovernmental construction or contracting, including, but not limited to, a violation of (i) Ethics in Public Contracting statutes, § 2.2-4367 et seq. of the Code of Virginia, (ii) the Virginia Governmental Frauds Act, § 18.2-498.1 et seq. of the Code of Virginia, (iii) Conspiracy to Rig Bids to Government statutes § 59.1-68.6 et seq. of the Code of Virginia, (iv) any substantially similar law of the United States or another state, or (v) any criminal offense indicating a lack of moral or ethical integrity as may reasonably be perceived to relate to or reflect upon the bidder's business practices.
6. The bidder or any officer, director or owner thereof is currently debarred pursuant to an established debarment procedure from bidding or contracting by any public body, agency of another state or agency of the federal government.
 7. The bidder failed to provide to the public body in a timely manner any information requested by the Department relevant to the preceding paragraphs 1 through 6.
 8. The bidder fails to register and participate in the E-Verify program as required by § 2.2-4308.2 of the Code of Virginia.
 9. The bidder or any officer, director, owner, project manager, procurement manager or chief financial official thereof has had a judgment entered against them for violation of the Virginia Fraud Against Taxpayers Act (Code of Virginia § 8.01-216.1, et seq.).
 10. More than one ~~proposal~~ bid for the same work ~~from~~ is submitted by an individual, partnership, corporation or joint venture under the same or different name. A ~~proposal~~ bid submitted by an affiliate of an individual, partnership, corporation or any party of a joint venture will be considered as more than one ~~proposal~~ bid submitted for the same work. *Affiliate* as used herein shall conform to the definition in Section 101.02 - Terms.
 - ~~(b) evidence~~ 11. *Evidence* of collusion among bidders; participants in such collusion will not be considered for future bids until ~~requalified by the Board~~ new applications for prequalification are approved according to the Rules Governing Prequalification Privileges.
 - ~~(c) incompetency~~ 12. *Incompetency* or inadequate machinery, plants, or other equipment as revealed by the bidder's financial and experience statements required by these Specifications *and the Rules Governing Prequalification Privileges*.
 - ~~(d)~~ 13. *Unsatisfactory workmanship or* unsatisfactory ~~workmanship or~~ progress *toward timely completion of the Work* as described within Sections 102.01, 102.08, 105.05, 108.03, 108.07 or other applicable ~~specifications and~~ Specifications as demonstrated by performance records of current or past work for the Department, other agencies or departments of the Commonwealth, *other public bodies in the Commonwealth*, or agencies or departments of other states in the United States or federal government.
 - ~~(e) uncompleted~~ 14. *Uncompleted* work *under contract* with the Department that in the judgment of the Engineer might hinder or prevent prompt completion of additional work if awarded.
 - ~~(f) failure~~ 15. *Failure* to *promptly* pay or settle satisfactorily all bills for materials, labor, equipment, supplies, or other items specified in contracts in force at the time the new work comes before the Board for award.

- ~~(e) failure~~ **16. Failure** to comply with any prequalification ~~rule or~~ regulation of the Department.
- ~~(h) failure~~ **17. Failure** to cooperate properly with representatives of the Commonwealth inspecting, monitoring or administering construction or disorderly conduct toward any such representative in contracts.
- ~~(i) default~~ **18. Default** under a previous contract, ~~or with the Commonwealth.~~
- ~~(j) 19.~~ Failure to pay ~~back~~ amounts owed **to** the Department, as specified in Section 109.10, on other contracts.
- 20. Any other activities of a bidder of a serious or compelling nature that are reasonably perceived to relate to its work as a contractor.**
- 21. Making materially false statements in a bid or certified statement submitted to the Department.**
- 22. Documentation of the failure to meet SWaM or DBE requirements on the Department's projects according to Section 107.**
- (b)** Temporary disqualification of a bidder as provided herein will result in the temporary disqualification of each member of a joint ~~venture and~~ **venture** and any affiliate, ~~of the bidder~~ having substantially the same operational management or drawing from the same equipment or labor resource pool. Temporary disqualification will also result in ~~non-approval~~ **disqualification** of the bidder, each member of a joint venture, and affiliates as defined herein, for performance of work as subcontractors that in the opinion of the State Contract Engineer, could adversely affect other work under contract to the Department.
- (c)** The above-listed reasons for possible disqualification are not ~~totally inclusive~~ **exclusive** and disqualification may occur based on other requirements within these Specifications, ~~and in the Rules Governing Prequalification Privileges.~~

Bidders who are disqualified

- (d)** *Disqualified bidders may challenge and appeal their disqualification according to the Rules Governing Prequalification Privileges. Disqualified bidders may be allowed to re-apply for prequalification and be reinstated, on the List of Prequalified Vendors at the discretion of the State Contract Engineer or the Prequalification Panel, upon satisfactory compliance with the any requirements that may be imposed. In addition, the disqualified bidder shall submit a new prequalification application package and satisfy all prequalification requirements of these Specifications and the Rules Governing Prequalification Privileges.*

102.09—Submission of Bid

Each bid shall be submitted to the Department by approved electronic media in accordance with the policy ~~and procedures in place~~ **in place** at the time of the advertisement and bid. This information will be posted on the *Department's* Construction website at www.virginiadot.org/business/const. ~~Refer to, under "Electronic Bidding" information.~~

Bids shall be ~~filed~~ **submitted** prior to the time and at the place specified in the Notice of Advertisement **for Bids**. Bids received after that time will be returned to the bidder unopened. The date for the opening of bids may be deferred by the Department, in which case the bidders will be notified.

102.10—Withdrawal of Bid

A bidder may withdraw a bid in accordance with the following.

- (a) **Standard Withdrawal:** Bids may be withdrawn as allowed by the electronic bidding system until bid closing. A bidder may withdraw a bid provided the request for the withdrawal is written and signed by a person(s) who qualifies to execute the bid in accordance with the requirements of Section 102.05.
- (b) **Conditional Withdrawal:** A bidder who desires to bid on more than one project for which bids are to be opened on the same date and desires to protect himself against receiving awards for more projects than he is equipped to handle may secure the protection desired by completing the portion of the electronic bid for the conditional withdrawal of bids.

102.11—eVA Business-To-Government Vendor Registration

~~Bidders are not required to be registered with eVA Internet e-procurement solution at the time bids are submitted; however, prior to award, the lowest responsive and responsible bidder must be registered with "eVA Internet e-procurement solution" (www.eVA.virginia.gov), or the bid will be rejected. Registration shall be performed by accessing the eVA website portal www.eva.state.va.us, following the instructions and complying with the requirements therein.~~ *Before a Contract is awarded, the apparent successful bidder shall be a registered vendor in "eVA Internet e-procurement solution" at the time bids are submitted; however, prior to award, the lowest responsive and responsible bidder must be registered with "eVA Internet e-procurement solution" (www.eVA.virginia.gov), or the bid will be rejected. Registration shall be performed by accessing the eVA website portal www.eva.state.va.us, following the instructions and complying with the requirements therein. When registering with eVa it is the bidder's responsibility to have its correct payment and physical addresses entered in eVa in order to receive payments on any contracts that the Department may award. The bidder shall also ensure their prequalification address(es) match those registered with eVa.*

102.12—Public Opening of Bids

Electronic bids will be decrypted, ~~opened, printed to paper and~~ along with all other bids ~~will be~~ *opened and* read publicly at the time and place specified in the Notice of Advertisement. Interested parties are invited to be present ~~at the opening or view the lettings in real time on the Department's Construction website at www.VDOT.Virginia.gov.~~ *As-Read results will be posted on the Construction website at www.VDOT.Virginia.gov this website as soon as possible on the day of the reading.*

102.13—"E-Verify" - Verification of Work Authorization

By signing and submitting the bid, the bidder certifies that it does not, and shall not during the performance of the Contract knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.

- (a) *"E-Verify program" means the electronic verification of work authorization program of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (P.L. 104-208), Division C, Title IV, § 403(a), as amended, operated by the U.S. Department of Homeland Security, or a successor work authorization program designated by the U.S. Department of Homeland Security or other federal agency authorized to verify the work authorization status of newly hired employees under the Immigration Reform and Control Act of 1986 (P.L. 99-603).*

- (b) *Bidders or Contractors with more than an average of 50 employees for the previous 12 months entering into a contract in excess of \$50,000 with the Department shall register and participate in the E-Verify program to verify information and work authorization of their newly hired employees performing work pursuant to such contract.*
- (c) *Bidders or Contractors who fail to comply with the provisions of this Section 102.13(b) shall be debarred from contracting with any agency of the Commonwealth for a period up to one year. Such debarment shall cease upon registration and participation in the E-Verify program.*

102.14—Registration or Authorization to Transact Business

To bid on and enter into a contract with the Department, a bidder organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership, or registered as a registered limited liability partnership shall be authorized to transact business in Virginia as a domestic or foreign business entity if so required by Code of Virginia Title 13.1 or Title 50 or as otherwise required by law. The Contractor shall not allow its existence to lapse or its certificate of authority or registration to transact business in Virginia, if so required under Title 13.1 or Title 50, to be revoked or cancelled at any time during the term of the Contract. The Department may void the Contract with the Contractor if it fails to remain in compliance with the provisions of this Section.

A bidder organized or authorized to transact business in Virginia pursuant to Code of Virginia Title 13.1 or Title 50 shall include in its bid the identification number issued to it by the Virginia State Corporation Commission. Any bidder that is not required to be authorized to transact business in Virginia as a foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall include in its bid a statement describing why the bidder is not required to be so authorized. Any bidder that fails to provide the information as required shall not receive an award unless a waiver of this requirement and the administrative policies and procedures established to implement this Section is granted by the Director of the Virginia Department of General Services or his designee.

SECTION 103—AWARD AND EXECUTION OF CONTRACTS

103.01—Consideration of Bids

After bids have been opened and read, the Department will evaluate bid submittals to determine ~~if~~ *whether* all requirements of Section 102 ~~and the Proposal~~ have been met. Bids not submitted in accordance with the requirements of Section 102 ~~and the Proposal~~ will be rejected.

Bids will be compared on the basis of the summation of the products of the quantities shown in the bid schedule and the unit bid prices.

The Department may correct arithmetical errors in the bid prior to such comparison, in accordance with Section 102.05. The results of the comparisons will be available to the public after the determination has been made to award the Contract.

The Board reserves the right to reject any or all bids, waive ~~technicalities~~ *informalities*, advertise for new bids, or proceed to do the ~~work~~ *Work* otherwise if it deems that the best interest of the Commonwealth would be promoted thereby.

The Department may, as part of its deliberations toward award of a contract, enter into a Memorandum of Understanding (MOU) with the apparent lowest responsive and responsible bidder if any of the following is determined to be necessary:

- (a) Provide and document further clarification of a specification or drawing*
- (b) Establish an order of priority (ranking) where there are conflicting specification requirements*
- (c) Ensure proper understanding of the intent\meaning of a specification or drawing*
- (d) Document the inclusion of inadvertently excluded pages from the contract documents*
- (e) Document the correct unit of measurement where a conflict exists within the bid documents*
- (f) Document the elimination of an item(s)*
- (g) Limit the Department's exposure to contract overruns or potential unbalancing of a bid item.*

This listing is not to be interpreted as all inclusive, but is provided to give examples of the types of issues that may be addressed in such an agreement. The MOU is not intended to be used to negotiate "as bid" unit prices\quantities or to renegotiate bid requirements with the apparent lowest responsive and responsible bidder, but merely to address intent, clarify points of confusion or limit the possible future effects of such issues on project budget. If the terms of the MOU are acceptable to both parties, the Department and the apparent lowest responsive and responsible bidder will document their acceptance of the terms of the MOU by both parties' signatures. In the case of Federal Oversight projects, FHWA concurrence also required. The MOU will be added to and become part of the executed contract.

103.02—Award of Contract

If the Contract is awarded, the award will be made to the lowest responsive and responsible bidder without discrimination on the grounds of race, color, sex, or national origin. In the event of tie bids, preference will be given to *the lowest responsive and responsible bidder who is a resident of Virginia* ~~persons, firms, or corporations;~~ otherwise, the tie will be decided by lot.

Whenever any bidder is a resident of any other state and such state under its laws allows a resident contractor of that state a preference, a like preference may be allowed to the lowest responsive and responsible bidder who is a resident of Virginia. The award date will not be later than midnight on the 60th day after the opening of bids. If the Board, or the Commissioner; where permitted by law, has not awarded the Contract within this period, the bidder may withdraw his bid without penalty or prejudice unless the time limit is extended by mutual consent. *The Virginia Department of General Services shall post and maintain an updated list on its website of all states that allow their resident contractors an absolute preference or a percentage preference and the percentage amounts.*

103.03—Cancellation of Award

The Board, or the Commissioner; where permitted by law, may cancel the award of any contract at any time before the execution of the ~~contract~~ *Contract* by all parties without liability to the Commonwealth.

103.04—Forfeiture of Proposal Guaranty

~~When the bidder withdraws his bid prior to award, after being determined the apparent low bidder, the bid bond will or fails to sign and return the Contract Documents. The proposal guaranty shall be forfeited according to the forfeiture provisions in accordance with the requirements of the Code of Virginia as amended (§ 2.2-4336) and the proposal guaranty.~~ *A bidder's proposal guaranty shall be subject to forfeiture if the apparent low bidder withdraws his bid prior to award, after being determined the apparent low bidder, the bid bond will or fails to sign and return the Contract Documents. The proposal guaranty shall be forfeited according to the forfeiture provisions in accordance with the requirements of the Code of Virginia as amended (§ 2.2-4336) and the proposal guaranty.*

103.05—Requirements of Contract Bond

Within 15 calendar days after notification of award of the Contract the successful bidder shall furnish the following bonds for contracts in excess of \$250,000.00:

- (a) ~~a~~ *A* performance bond in the sum of the Contract amount, conditioned upon the faithful performance of the Contract in strict conformity with the plans, Specifications and conditions of the Contract, and
- (b) ~~a~~ *A* payment bond in the sum of the Contract amount, conditioned upon the prompt payment for all labor, materials, public utility services and rental of equipment used in the prosecution of the work for the Contract.

Bidders will not be awarded an unbonded contract when their bid plus the balance of other unbonded contracts exceeds \$250,000.00 or as otherwise limited by their current ~~prequalification~~ *prequalification* status.

The bonds shall be made on official forms furnished by the Department and shall be executed by the bidder and a surety company carrying a minimum "Best Rating" of "B +" and authorized to do business in Virginia in accordance with the laws of Virginia and the rules and regulations of the State Corporation Commission. To be considered properly executed, the bonds shall include authorized signatures and titles.

103.06—Contract Documents

~~The portion of the executed Contract submitted by the Contractor shall include the following documents unless the filing of any of them at a later date is specifically permitted by other sections of these Specifications or~~ *otherwise specified* by Special Provisions or Special Provision Copied Notes:

- (a) **Contract:** The Contract shall include the ~~schedule~~ *fully executed Proposal including all addenda or revisions thereto issued prior to the bid date, the Schedule of Items showing the prices submitted by the bidder, plans, standard drawings, these Specifications, supplemental specifications, special provisions, special provision copied notes, Supplemental Specifications, Special Provisions, Special Provision Copied Notes, the plans and the standard form* ~~edition~~ *of the Road and Bridge Standard Drawings cited on the title sheet of the plans including all addenda or revisions thereto issued prior to the bid date, and change orders that the Engineer issues after the* Contract, ~~all as furnished by the Department execution date.~~
- (b) **Contract *Performance and Payment* Bonds:** Contract bonds shall conform to the requirements of Section 103.05.

- (c) **Affidavits and Documents:** Affidavits and documents shall include those required to be made a part of the Contract by any federal or state law in effect on the date of the Notice of Advertisement.
- (d) **Workers' Compensation Insurance Certificate:** ~~The certificate shall be filed on forms furnished by the Department within 15 calendar days after notification of award of the Contract.~~ *Contractor shall procure and continue to maintain for the duration of the Work until final acceptance, Workers' Compensation and Employers' Liability Insurance for all of its employees engaged in the Work in an amount not less than the minimum required by Code of Virginia (§ 2.2-4332), and the Virginia Workers' Compensation Act, Code of Virginia §65.2-100 et seq. When any of the Work is sublet, the Contractor shall require each subcontractor to provide similar Workers' Compensation and Employers' Liability Insurance for all of the subcontractor's employees engaged in the Work.*

Within 15 days after the date of the notice of award of the Contract, the bidder shall submit a Certificate of Insurance verifying Workers' Compensation coverage using the Department's forms (Form C-73). The certificate shall be executed by an approved and authorized insurance company as required by state law and shall cover the Contract—~~it accompanies.~~ The Contractor shall likewise obtain a Certificate of Insurance for Workers' Compensation coverage from each subcontractor prior to awarding the subcontract and shall provide a copy to the Department.

~~The Contractor shall file notice with~~ *notify* the Department *in writing* at least 30 days prior to the cancellation ~~of any required workers' compensation coverage. If any of his or~~ *reduction of the bonds or* insurance ~~of required under this class is cancelled, the Section.~~ *The Contractor shall cease all operations on the effective date of the cancellation or reduction unless and shall not resume operations until new bonds or insurance is certified as being* *are* in force *and the same evidence of bonds or insurance are provided to the Department.*

- (e) **Progress Schedule:** The Contractor shall submit a progress schedule in accordance with the requirements of Section 108.03 or as specified in the Contract Documents.
- (f) **Contractor's Bodily Injury and Property Damage Liability Insurance:** ~~**Certificate:**~~ *The Contractor shall procure and maintain at his own expense, for the duration of the Work until final acceptance of the work covered by the Contract, insurance of the kinds and in the amounts specified herein. The minimum limits of liability for this insurance shall be as follows:*

A Combined Single Limit for Bodily Injury Liability and Property Damage Liability		
	\$1,000,000	Each Occurrence
	\$2,000,000	Aggregate

~~Evidence~~ *Within 15 days after the date of insurance in the notice of award of the Contract, the bidder shall submit Certificates of Insurance showing compliance with the above shall be filed on forms approved by the Department within the time specified herein using the Department's form (Form C-73). The evidence certificates shall be executed by an approved and authorized insurance company authorized to do business in Virginia and with a minimum "Best Rating" of "B +", and shall cover the Contract it accompanies.*

~~The Contractor shall file notice with the Department at least 30 days prior to the cancellation or reduction of the required insurance, and shall cease operations on the date of~~

~~the cancellation or reduction until new insurance is in force and the same evidence of insurance is provided to the Department.~~

The Contractor's Bodily Injury and Property Damage Liability Insurance shall cover liability of the Contractor for damage because of bodily injury to, or death of persons and damage to, or destruction of property, that may be suffered by persons other than the Contractor's own employees as a result of the negligence of the Contractor in performing the ~~work~~ covered by the Contract *Work*.

Insurance provided in compliance with this Section shall include liability of the Contractor for damage to or destruction of property that may be suffered by persons other than the Contractor's own employees as a result of blasting operations of the Contractor in performing the work covered by the Contract.

If any part of the ~~work~~ *Work* is sublet, insurance meeting the same requirements shall be provided by or ~~in~~ on behalf of the subcontractors and evidence of such insurance shall be submitted with the sublet request.

Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve the Contractor or subcontractor(s) of liability in excess of such coverage, nor shall it preclude the Commonwealth from taking such actions as are available to it under any other provision of this Contract or otherwise in law.

103.07—Failure to Furnish Bonds or Certificate of Insurance

~~Failure by the~~ *The* successful bidder ~~bidder's failure~~ to furnish *to* the Department acceptable bonds, workers' compensation insurance *certificates* or the Contractor's Bodily Injury and Property Damage Liability Insurance ~~policy~~ *certificates* within 15 calendar days after being notified ~~the date of the~~ *notice of* award of the Contract shall be considered just cause for cancellation of *the* award and forfeiture of the proposal guaranty. In such event, the proposal guaranty shall become the property of the Commonwealth, not as a penalty but in liquidation of damages sustained. The Contract may then be awarded to the next lowest *responsive and* responsible bidder, or the ~~work~~ *Work* may be re-advertised or constructed otherwise, as determined by the Board *or the Department*.

~~In the event the successful bidder on an unbonded contract is unwilling or unable to fulfill the Contract and fails to notify the Department prior to execution of the Contract by the Department, the bidder will be declared in default in accordance with the requirements of Section 108.07.~~

~~In the event the bidder, on an unbonded contract, notifies the Department prior to execution of the Contract by the Department of such unwillingness or inability to fulfill the Contract, the bidder will be enjoined from bidding on an unbonded contracts for a period of no less than 90 days from the date of notice by the Department.~~

~~A bidder who has never been enjoined or defaulted on an unbonded contract and who notifies the Department prior to contract execution of an unwillingness or inability to fulfill the Contract will not be enjoined for the first occurrence; however, said bidder will not be permitted to rebid or perform work on that specific Contract.~~

103.08—Contract Audit

The Contractor shall permit the Department to audit, examine, and copy all documents, computerized records, electronic mail, or other records of the Contractor during the life of the Contract and for a period of not less than five years after the date of final payment, or the date the Contractor is declared in default of Contract, or the date of termination of the Contract. The documents and records shall include, but not be limited to:

- (a) Those that were used to prepare and compute the bid, prepare all schedules used on the project, record the progress of work on the project, accounting records, purchasing records, personnel payments or records necessary to determine employee credentials, vendor payments and written policies and procedures used to record, compute and analyze all costs incurred on the project, including those used in the preparation or presentation of claims to the Department.
- (b) Records pertaining to the project as the Department may deem necessary in order to permit adequate evaluation and verification of Contractor's compliance with ~~contract~~Contract requirements, compliance with the Department's business policies, and compliance with provisions for pricing ~~work~~change orders or claims submitted by the Contractor or the Contractor's subcontractors, insurance agents, surety bond agents and material suppliers shall be made available to the auditor(s) at the Department's request. The Contractor shall make his personnel available for interviews when requested by the Department.
- (c) Upon request, the Contractor shall provide the Department with data files on data disks, or other suitable alternative computer data exchange format. Data furnished by the Contractor that cannot be verified will be subject to a complete audit by the Department.

The Contractor shall ensure that the requirements of this provision are made applicable to his subcontractors, insurance agents, surety bond agents and material suppliers. The Contractor shall cooperate and shall cause all related parties to furnish or make available in an expeditious manner all such information, materials, and data. ~~The Contractor shall be forthcoming in disclosing all sources and locations of media.~~

The Contractor shall provide immediate access to records for the audit and provide immediate acceptable facilities for the audit. Failure on the part of the Contractor to afford the Department immediate access or proper facilities for the audit will be considered failure to cooperate and will result in disqualification as a bidder in accordance with Section 102.08.

Upon completion of the ~~contract~~Contract audit, any adjustments or payments ~~due by~~ the Contractor ~~owes to the Department~~ as a result of the audit shall be made ~~to the Department~~ within 60 days from presentation of the Department's findings to the Contractor. Failure on the part of the Contractor to make ~~such~~ payment may result in disqualification as a bidder in accordance with Section 102.08.

If the Contractor disagrees with the findings of the Department's audit, the Contractor may ~~appeal~~dispute the ~~decision~~findings in accordance with provisions of Section 105.19 or the Code of Virginia as amended and as applicable, except that ~~if the provision~~time provided for the Contractor to submit a claim within 60 days after final payment ~~shall not apply. If has expired,~~ the Contractor ~~elects~~ ~~shall instead submit a written claim to appeal~~dispute the ~~decision of~~findings to the ~~audit~~ he shall ~~Engineer~~ within 60 days ~~of from~~ the date ~~of the notice of~~Contractor received the Department's findings ~~submit a written request to appeal the decision to the Chief Engineer.~~findings. Failure on the part of the Contractor to ~~file~~submit a claim disputing the Department's ~~audit~~findings within 60 days ~~will be interpreted as such 60-day period shall constitute~~ a waiver ~~and release~~ of any claim ~~for dispute of~~disputing the Department's findings.

103.09—Execution of Contract

- (a) The bid as submitted, including the documents *Contract Documents* specified in Section 103.06(a) shall constitute the Contract upon submittal of the ~~contract~~ *Contract* bond, ~~contract~~ *Contractor's* bodily injury and property damage liability insurance ~~certificate~~ *certificates*, and workers' compensation insurance certificate and the *Department's* final execution ~~by of the Department~~ *Contract*. After the Department has recommended the bid for award, the apparent low bidder shall be required to sign and return a paper copy of the ~~contract documents~~ *Contract Documents* to the State Contract Engineer. Failure to sign and return the ~~contract documents~~ *Contract Documents* will result in *cancellation of the award and* forfeiture of the ~~bid bond~~ *proposal guaranty*. If the Contract is not awarded within the time limit specified in Section 103.02, the bidder may withdraw his bid without penalty or prejudice unless the time limit is extended by mutual consent. ~~No~~ *The Department will execute the Contract upon receipt of the Contractor's signed Contract Documents. The* Contract shall be considered *binding and* effective ~~until~~ *only when* it has been fully executed by all parties.
- (b) ***Notice of Contract execution.*** *The Contract Engineer will notify the Contractor of the date that the Department has executed the Contract. The Contract Engineer or his designee will confirm the Contract execution date in such notice. The notice will identify the Engineer's authorized representative responsible for written directives and changes to the Contract, who will contact the Contractor to arrange a pre-construction and scheduling conference.*
- (c) ***Unbonded Contracts***

In the event the successful bidder on an unbonded contract is unwilling or unable to fulfill the Contract and fails to notify the Department prior to the Department's execution of the Contract, the bidder will be declared in default in accordance with the requirements of Section 108.07.

In the event the bidder, on an unbonded contract, notifies the Department prior to the Department's execution of the Contract of such unwillingness or inability to fulfill the Contract, the bidder will be enjoined from bidding on unbonded contracts for a period of no less than 90 days from the date of notice by the Department.

A bidder who has never been enjoined or defaulted on an unbonded contract and who notifies the Department prior to the Department's execution of the Contract of such unwillingness or inability to fulfill the Contract will not be enjoined for the first occurrence; however, said bidder will not be permitted to rebid or perform work on that specific Contract.

103.10—Assignments, Transfers, or Assumptions of the Contract

The Contractor shall not assign, transfer, convey, or allow any person or business to assume or take over, in whole or in part, the Contract, the Contractor's duties, obligations, interests, or rights arising under, from or relating to the Contract, or to legally or equitably assign money due and to become due under the Contract, or on any claim arising from or relating to performance or nonperformance of the Contract, except for subcontracting as provided in Section 105.06, without the Engineer's specific written authorization. Any unauthorized assignment, transfer, conveyance, assumption or take over agreement shall be void and shall constitute a material breach of the Contract. No assignment, transfer, conveyance, assumption or take over agreement shall relieve the Contractor from its duties and obligations under the Contract, or release the Contractor of any liability under the Contract bonds.

SECTION 104—SCOPE OF WORK

104.01—Intent of Contract

The intent of the Contract is to provide for completion of the ~~work~~Work specified therein *in accordance with the Contract Documents for the Contract amount and* within the ~~budget and Contract~~ time limit ~~stated in the Contract~~. Further, it is understood that the Contractor ~~execute~~*shall perform* the ~~work~~Work under the ~~contract~~Contract as an independent contractor and not as an agent of the Department, the Commissioner or the ~~Commonwealth Transportation Board~~.

104.02—~~Alteration of~~*Changes in* Quantities or ~~Character of~~*Alterations in the* Work

(a) General

The Engineer reserves the right to make, in writing, at any time during the ~~work~~Work, such changes in quantities *of Contract items* and such alterations ~~in the work~~*of Contract items* as are necessary to complete the project satisfactorily. Such changes ~~in quantities and~~ alterations *in Contract items* shall not invalidate the Contract or release the surety, and the Contractor shall ~~agree to perform the work~~Work as *changed or* altered. No change, alteration or *other* modification in or deviations from the Contract or the Contract Documents, or the giving by the Department of any extension of time for the performance of the Contract, or the forbearance on the part of the Department shall release or exonerate in whole or in part either the Contractor or any surety on the obligations of any bond given in connection with the Contract. Neither the Department nor the Contractor shall be under any obligation to notify the surety or sureties of any such alteration, change, extension or forbearance, notice thereof being expressly waived. Any increase in the Contract amount shall automatically result in a corresponding increase in the penal amount of the bonds without notice to or consent from the surety, such notice and consent being hereby waived. Decreases in the Contract amount shall not, however, reduce the penal amount of the bonds unless specifically provided in any change order as authorized in accordance with the provisions of Section 109.05 decreasing the scope of the work.

The Contract may be modified as provided in the Contract Documents, but the Contract amount may not be increased by more than twenty-five percent of the original Contract amount or \$50,000, whichever is greater, without the advance written approval of the Governor, or his designee. In no event may the Contract amount, without adequate consideration, be increased for any purpose, including, but not limited to, to relieve a bidder from the consequences of an error in its bid.

(b) *Significant Changes in the Character of Work*

If the *Engineer's changes or* alterations ~~in the nature of the work or changes in quantities, significantly result in a significant change in~~ the character of the ~~work~~Work under the Contract, an adjustment, ~~excluding anticipated profits for reduced or eliminated work, may be~~ *will be* made ~~to the Contract~~*according to Section 109.05*. The basis for the adjustment shall be agreed upon prior to the performance of the ~~work~~*affected Work*. If a basis cannot be agreed upon, an adjustment will be made either for or against the Contractor in such amount as the Engineer may determine to be fair and ~~equitable~~*reasonable*.

~~At the option of the~~*The* Engineer, ~~may, at his option, direct~~ the Contractor ~~may be directed~~ to accomplish the ~~work~~*change or alteration* on a force account basis when the ~~scope of work meets~~*circumstances meet* the requirements for ~~such a determination in accordance with the requirements of~~*force account work under* Section 109.05.

If the *Engineer's changes or* alterations ~~or changes in quantities~~ do not significantly ~~result in a significant change in~~ the character of the ~~work to be performed under the contract,~~ *the Work, the changed or* altered work will be paid for ~~as provided elsewhere in~~ *at* the Contract *price for the actual quantities of work performed.*

The term significant change shall be construed to apply only to the following circumstances:

- ~~(1).~~ When the character of the ~~work~~*Work* as *changed or* altered differs materially in kind or nature from that involved or included in the original proposed construction ~~or.~~
- ~~(2).~~ When ~~the actual quantity of a major item~~*Major Item* of work, as defined elsewhere in the ~~contract is increased~~*Contract, increases* or ~~decreased~~*decreases* more than 25 percent of the original ~~contract~~*Contract* quantity. Any ~~allowance~~*adjustment* for an increase or decrease in cost due to an increase in quantity of more than 25 percent shall be calculated only on that quantity in excess of 125 percent of the original ~~contract bid pay~~ item quantity. ~~Also any allowance~~ *Any adjustment* for an increase or decrease in cost due to a decrease in quantity ~~of more to less than 25 percent shall be calculated only on that quantity below 75 percent of the original contract bid pay item quantity, or in case of a decrease below 75 percent, shall apply to the actual amount of work performed, or.~~
- ~~(3).~~ When ~~overruns and underruns~~*the actual quantity* of piling ~~amount to~~*increases or decreases* more than 25 percent of the original ~~bid pay item~~ quantity, whether or not such item has been designated as a ~~major item, or~~
- ~~(4).~~ When ~~overruns~~*Major Item. Compensation for such increases* or ~~underruns~~*decreases shall be the same as for a Major Item of work.*
4. *When the actual quantity of a Minor Item of work, as defined elsewhere in the Contract, increases more than 100% on minor items percent of the original pay item quantity and the amount paid for such item can be demonstrated as not representative of the true cost of the work when considering the applicable unit bid price.*

~~(b)~~ **Value Engineering Proposals**

The Contractor may submit to the Engineer written Value Engineering Proposals (VEP) for modifying the plans, Specifications, or other requirements of the Contract for the purpose of reducing the total cost and/or ~~contract~~*Contract* time of construction without reducing the design capacity or quality of the finished product. If the ~~VEP is accepted by the Department~~ *accepts the VEP*, the ~~net savings and/or contract time will be equally divided by the Department and the Contractor~~ *will equally divide the net savings or Contract time, or both.* When an accepted VEP includes ~~contract~~*Contract* time savings, ~~the contract completion date shall be advanced by one-half of the such time savings accepted in~~ *shall be used to reduce the VEP* *Contract time* and the Contractor ~~shall have exclusive use of the remaining one-half of the time such time savings shall be used exclusively by the Contractor~~ as contractor float. *The Contractor shall identify in the SOR, a VEP contractor float activity for each accepted VEP that includes Contract time savings. The VEP contractor float may be used by the Contractor to mitigate its delays on the project.*

Each VEP shall result in a net savings over the ~~contract~~*Contract* cost ~~and/or~~*Contract* time, ~~or both~~, without impairing essential functions and characteristics of the item(s) or of any other part of the project, including, but not limited to, service life, reliability, economy of operation, ease of maintenance, aesthetics, and safety. At least the following information shall be submitted with each VEP:

- Statement that the proposal is submitted as a VEP
- Statement concerning the basis for the VEP benefits to the Department and an itemization of the ~~contract~~*pay* items and requirements affected by the VEP
- Detailed estimate of the cost ~~and/or~~ ~~contract~~*Contract* time, ~~or both~~, under the existing Contract and under the VEP
- Proposed specifications and recommendations as to the manner in which the VEP changes are to be accomplished
- Statement as to the time by which a ~~contract work~~*Contract change* order adopting the VEP must be issued so as to obtain the maximum cost-effectiveness

The Department will process the VEP in the same manner as prescribed for any other proposal that would necessitate issuance of a ~~work~~*change* order. The Department may accept a VEP in whole or part by issuing a ~~work~~*change* order that will identify the VEP on which it is based. The Department will not be liable to the Contractor for failure to accept or act on any VEP submitted pursuant to these requirements or for delays in the work attributable to any VEP. Until a VEP is put into effect by a ~~work~~*change* order, the Contractor shall remain obligated to the terms and conditions of the existing Contract. If an executed ~~work~~*change* order has not been issued by the date on which the Contractor's proposal specifies that a decision should be made or such other date as the Contractor may subsequently have specified in writing, the VEP shall be deemed rejected.

The ~~work~~*change* order effecting the necessary modification of the Contract will establish the net savings agreed on, ~~and~~ provide for adjustment of the ~~contract~~*Contract* prices, ~~and/or~~ ~~contract~~*Contract* time, ~~and indicate the net savings~~ ~~or both~~. The Contractor shall absorb all costs incurred in preparing a VEP. Costs for reviewing and administering a VEP will be borne by the Department. The Department may include in the agreement any conditions it deems appropriate for consideration, approval, and implementation of the VEP. The Contractor's 50 percent share of the net savings ~~and/or~~ ~~contract~~*Contract* time, ~~or both~~, shall constitute full compensation to him for effecting all changes pursuant to the ~~agreement~~*VEP change order*.

Unless specifically provided for in the ~~work~~*change* order authorizing the VEP, acceptance of the VEP and performance of the work thereunder will not change the ~~contract~~*Contract* time limit.

The Department may adopt a VEP for general use in contracts ~~administered by the~~ Department *administers* if it determines that the VEP is suitable for application to other contracts. VEPs identical with or similar to previously submitted VEPs will be eligible for consideration and compensation under these provisions if ~~they have~~ *the Department has* not ~~been previously adopted~~ *the VEPs* for general application to other contracts ~~administered by~~ the Department *administers*. When a VEP is adopted for general use, compensation pursuant to these requirements will be applied only to those awarded contracts for which the VEP was submitted prior to the date of adoption of the VEP.

Proposed changes in the basic design of a bridge or pavement type or those changes that require different right-of-way limits will not normally be considered an acceptable VEP. If a VEP is based on or is similar to a change in the plans, Specifications, or ~~special provisions adopted by~~ *Special Provisions* the Department *has adopted* prior to submission of the VEP, the Engineer will not accept the VEP.

The Engineer will be the sole judge of the acceptability of a VEP. The requirements herein apply to each VEP initiated, developed, and identified as such by the Contractor at the time of its submission to the Engineer. However, nothing herein shall be construed as requiring the Engineer to approve a VEP.

Subject to the provisions herein, the Department or any other public agency shall have the right to use all or part of an accepted VEP without obligation or compensation of any kind to the Contractor.

If ~~a VEP is accepted by the Department~~ *accepts a VEP*, the provisions of *Section 104.02(a)* herein ~~that~~ *which* ~~pertain to the adjustment of contract~~ *Contract* unit prices attributable to alterations of ~~contract~~ *Contract* quantities, will not apply to the items adjusted or deleted as a result of putting the VEP into effect by a ~~work~~ *change* order.

104.03—Differing Site Conditions

Type I: During the progress of the ~~work~~ *Work*, if subsurface or latent physical conditions differing materially from those indicated in the ~~contract~~ *Contract* are encountered at the site, the Contractor shall promptly notify the Engineer in writing of the specific differing conditions *before the site is disturbed further and before the affected work is performed*.

Type II: ~~During the progress of the Work, if~~ unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract, are encountered at the site the Contractor shall promptly notify the Engineer in writing of the specific differing conditions *before the site is disturbed further and before the affected work is performed*.

Upon receipt of ~~such~~ *the Contractor's* written notification, the Engineer will acknowledge receipt and investigate the conditions. ~~If it is determined by the Engineer that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment, excluding anticipated profits, will be made and the Contract may be modified in writing accordingly. The Engineer will notify the Contractor of the determination whether or not an adjustment of the Contract is warranted.~~ *Adjustments will be made according to Sections 108.04 and 109.05, as applicable.*

No adjustment that results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice.

No adjustment will be allowed under this Section for any effects caused on unchanged work.

SECTION 105—CONTROL OF WORK

105.01—Notice to Proceed

Unless otherwise indicated in the Contract, the ~~date of the~~ Notice to Proceed *date* will be the date *selected by the Contractor on which the Contractor intends to begin the work. That date shall be no earlier than 15 nor later than 30 calendar days after the date of contract execution.* The State Contract Engineer will contact the Contractor on the date of contract execution to inform him ~~of such action that the contract has been executed.~~ The State Contract Engineer will *also* confirm this date in the Letter of Contract ~~execution. This~~ *Execution. Copies of the* Letter of Contract Execution will be distributed to Department personnel involved in the administration of the Contract and to the Contractor. ~~The Contractor shall begin work within 15 days of the date of contract execution~~ *Within 10 calendar days after the date of contract execution the Contractor shall submit to the Engineer written notice of the date he has selected as his Notice to Proceed date. If the Contractor fails to provide written notice of his selected Notice to Proceed Date within 10 calendar days of contract execution, the selected Notice to Proceed Date will become the date 15 calendar days after the date of contract execution. The Contractor shall begin work no later than 10 calendar days after the date he has selected as his Notice to Proceed date,* unless the Notice to Proceed date is otherwise indicated in the Contract, in which case the Contractor shall begin work within ~~15~~ *10 calendar days of* ~~after the date of the~~ *specific* Notice to Proceed *date* indicated in the Contract.

Contract Time will commence on the date of the Notice to Proceed. The Letter of Contract Execution will identify the Chief Engineer's authorized representative, *hereafter referred to as the Engineer,* who is responsible for written directives and changes to the Contract. The Engineer will contact the Contractor after notice of award to arrange a pre-construction conference.

In the event the Contractor, for matters of his convenience, wishes to begin work *earlier than 15 calendar days or* later than ~~15~~ *30 calendar days from* ~~after~~ the date of ~~Notice to Proceed~~ *contract execution,* he shall make such a request in writing to the Engineer ~~promptly after the execution~~ *within 10 calendar days of the date of contract execution or once a Notice to Proceed Date has been established, if he wishes to begin work more than 10 calendar days after his selected Notice to Proceed date or the Notice to Proceed Date indicated in the Contract, he shall make such a request to the Engineer in writing no later than 5 calendar days after the Notice to Proceed date.* If ~~the Contractor's~~ *this* requested start date is acceptable to the Department, the Contractor will be notified in writing; however, the Contract fixed completion date will not be adjusted but will remain binding. The Contractor's request to adjust the start date for the work on the Contract will not be considered as a basis for claim that the time resulting from ~~the~~ Contractor's ~~requested~~ *adjusted* start date, if accepted by the Engineer, is insufficient to accomplish the work nor shall it relieve the Contractor of his responsibility to perform the work in accordance with the scope of work and requirements of the Contract. In no case shall work begin before the Department executes the Contract ~~or prior to the Notice to Proceed date unless otherwise permitted by the Contract or authorized by the Engineer.~~ The Contractor shall notify the Engineer at least 24 hours prior to the date on which he ~~plans to~~ *will* begin the work.

105.02—Pre-Construction Conference

~~Within 14 days after notification of award~~ *Prior to beginning the Work,* the Contractor shall attend a pre-construction conference scheduled by the Engineer to discuss the Contractor's planned operations for prosecuting and completing the ~~work within the time limit of~~ *Work in accordance with* the Contract. At the pre-construction conference the Engineer and the Contractor will identify in writing the authorities and responsibilities of project personnel for each party. ~~The pre-construction conference may be held simultaneously with the scheduling conference when the Engineer so indicates this in advance to the Contractor. When these are simultaneously held, the Contractor~~ *Contractor shall also come prepared to discuss key issues and project specific requirements necessary for* preparation and submittal ~~details of the~~ *baseline* progress schedule, *unless*

a separate Scheduling Conference is otherwise scheduled as mutually agreed to by the Engineer and the Contractor, in accordance with the requirements of Section 108.03 and other applicable provisions of the Contract.

The Engineer will be responsible for setting the conference agenda, conducting discussions and ensuring that minutes of the conference are taken and later timely distributed to all attendees. The pre-construction conference will be the ~~venue~~*time* to review the ~~contract~~*Contract* plans and documents. To that end, the conference agenda may include but not be limited to discussions on the general sequence of work, including the expected primary work tasks as defined by the Contractor, and proposed means and methods for the entire scope of work, potential problems or impacts, constructability issues, special considerations such as limitations and access issues, agreements with local agencies or governments, utility impacts or relocations including railroads, coordination with schedules of the utilities and subcontractors and associated work, sources and delivery of critical materials, submittals required by Contract documents including shop drawings, location of field office, labs, etc., environmental concerns including permits and erosion and siltation efforts, maintenance of traffic issues and EEO/DBE/MBE/SSW/Am requirements.

The Contractor shall provide the Engineer with a list of all equipment available for use in the prosecution of the ~~work~~*Work* on the ~~contract~~*Contract* at the pre-construction conference or no later than one week prior to the first monthly progress estimate. The make, model, size, capacity, and year of manufacture shall be listed for each piece of equipment. Where possible the Contractor shall provide this list in an electronic format. This list may take the form of the Contractor's fleet list of equipment. The Contractor shall provide the Engineer an updated list of equipment as changes occur.

105.03—Authorities of Project Personnel, *Communication and Decision Making*

(a) Authority of Engineer

During prosecution of the ~~work~~*Work*, the Engineer will answer all questions that may arise as to the quantity, quality, and acceptability of materials furnished and work performed; rate of progress of the ~~work~~*Work*; interpretation of the plans and Specifications; *the Contractor's* acceptable fulfillment of the Contract ~~by the Contractor~~; disputes and mutual rights between contractors; and *the Contractor's* compensation.

The Engineer has the authority to suspend the ~~work~~*Work* wholly or in part if the Contractor has created conditions that are unsafe or fails to correct conditions that are unsafe for workers or the general public or fails to carry out the provisions of the Contract. The Engineer may also suspend ~~work~~*the Work* for such periods as he may deem necessary because of catastrophic or extraordinary weather ~~in accordance with the definition of such as~~ *defined* in Section 108.04, conditions considered unsuitable for prosecution of the ~~work~~*Work*, or any other condition or reason deemed to be in the public interest.

The Engineer may issue written clarifications or directives that either enhance or alter the Contract Documents. The Engineer may ~~order~~*issue written orders for* such work as may be necessary to complete the Contract satisfactorily.

(b) Authority of Inspector-

~~Inspectors~~*Department* employed ~~by the Department~~*inspectors* are authorized to inspect all work performed and materials furnished. Inspection may extend to all or any part of the ~~work~~*Work* and to the preparation, fabrication, and manufacture of the materials to be used. ~~The Inspector is~~*Inspectors are* not authorized to alter or waive the provisions of these Specifications or make changes in the plans.

The ~~Inspector is~~ *Inspectors are* not authorized to make final acceptance of the project, approve any operation or item, or act as foreman for the Contractor. However, the ~~Inspector~~ *Inspectors* will have the authority to reject defective work and material and suspend work that is being improperly performed, subject to the concurrence of the Engineer. Such ~~inspection~~ *inspections* shall not relieve the Contractor of any obligation to furnish acceptable materials or provide completed construction that is in accordance with the requirements of the Contracts.

The ~~Inspector~~ *Inspectors* will exercise only such additional authority as ~~may be delegated by~~ the Engineer *may delegate*. The Engineer will advise the Contractor in writing of delegations of authority that will affect his operations.

(c) ***The Contractor***

The Contractor shall not construe reviews, approvals, or inspections by the Department, the Engineer, or the Department's inspectors, agents, and employees as a waiver, release, warranty or assumption of liability on the part of the Department. The Contractor understands and agrees that reviews, approvals, and inspections are for the Department's sole use and benefit. Any such reviews, approvals, and inspections shall not relieve the Contractor of its contractual duties and obligations or be conclusive as to the acceptability of the Contractor's performance.

(d) ***Communication and Decision Making***

1. ***Description***

The intent of this provision is to establish procedures, processes and guidelines for making decisions and managing communications regarding the Work. The information contained herein is not meant to be all inclusive but to serve as a minimal general framework for promoting efficient and effective communication and decision making at both the project and, if needed, executive administrative level. It is also not meant to override the decision-making processes or timeframes of specific Contract requirements.

2. ***Definitions***

For the purposes of this provision the following terms will apply and be defined as follows:

Submittals – Documents required by the Contract that the Contractor must submit for the Department's review, acceptance or approval. Submittals may include shop drawings, working drawings, material test reports, material certifications, project progress schedules, and schedule updates. The Contractor shall provide submittals as early as practicable so as not to delay review, acceptance or approval or the Work.

Confirmation of verbal instructions (COVI) - Contractor-requested written confirmation of the Department's instructions concerning the Work. When time and/or costs are or will be impacted, the Contractor must comply with the requirements applicable to requests for adjustments of the Contract amount or Contract time.

Requests for information (RFI) – Requests where either the Contractor or the Department asks that the other party supply information to provide better understanding of or to clarify a certain aspect of the Work.

Requests for Department action (RDA) – Requests where the Contractor asks the Department to take certain action that the Contractor feels is required for proper completion of all or a portion of the Work.

Contractor change requests (CCR) - Requests where the Contractor asks the Department to make an adjustment to the Contract because of excusable and/or compensable events, instructions that have or have not been given, or other work requiring time and/or cost beyond that specified or envisioned within the Contract.

Requests for Contractor action (RCA) – Requests where the Department asks the Contractor to take certain action that is in the best interests of the project and/or is required for proper completion of all or a portion of the Work.

Responsible Person – The individual in the normal or escalated resolution process, for either the Contractor or the Department, having the direct authority, responsibility and accountability to formulate and respond to each category of information request.

3. Process For Decision Making

- a. Project teams composed of the Contractor's and the Department's representatives, who are directly responsible for the administration, prosecution, and inspection of the Work, shall define and agree upon the field decision-making process during the pre-construction conference. This process should be written down and distributed to all affected parties once it is established. Where there are responsibilities, authority or personnel changes associated with this process, such changes shall be distributed to all affected parties as quickly as practicable after they are effective so as not to delay or impede this process.

The process for making field decisions with respect to the Work detailed in the Contract requires the following basic steps:

- (1) The Contractor and the Area Construction Engineer agree on the decision-making process, the identity, authority and accountability of the individuals involved, and on the cycle times for responses required for each category of decision.
 - (2) The requesting party requiring a decision generates the appropriate request documents, and calls for a decision from the individual who is accountable for the particular facet of the Work under consideration within the agreed period.
 - (3) The responding party has an internal decision-making process that supports the individual who is accountable and provides the information required within the agreed period for each category of decision.
 - (4) The party receiving the decision has an internal process for accepting the decision or for rejecting the decision and initiating further action according to the decision-making process within an agreed period of time.
- b. The process also requires that clear and well-understood mechanisms be in place to log and track requests, document the age and status of outstanding requests and actions to be taken on requests that have not been answered within the agreed period.

- c. *Both the Department and the Contractor shall agree on the following:*
 - (1) *The documentation and perhaps format to be developed for each category of information requested,*
 - (2) *The name (as opposed to organizational position) of all individuals with the responsibility, authority and accountability to formulate and respond to each category of information requested. The District Administrator (DA) or Chief Executive Officer (CEO) of the Contractor may delegate the responsibility and authority for formulating and responding to requests, however, the accountability for meeting the established response time(s) remains with the District Administrator and CEO.*
 - (3) *The cycle times for each stage in the decision-making process,*
 - (4) *The performance measures to be used to manage the process,*
 - (5) *The action to be taken if cycle times are not achieved and information is not provided in a timely manner.*
- d. *The general guideline and timeframe matrix in TABLES I-2A and I-2B will apply. These guidelines, however, are general in scope and may not apply to specific Contract time frames for response identified within the requirements of the Contract Documents. In such cases, specific Contract time frames shall apply.*

TABLE I-2A
PROCESS GUIDELINES FOR REQUESTS GENERATED BY THE CONTRACTOR

Process	Situation	Normal resolution process		Escalated process		Process if no resolution
		By	Within (calendar days)	By	Within	
Submittal	Contractor requests the Department's review, acceptance or approval of shop drawings, materials data, test reports, project progress schedules, or other submittals required by Specifications or other Contract Documents.	Department's Designated Project Manager	<ul style="list-style-type: none"> • Acknowledge: 3 days¹ • Accept or Return: 14 days • Final Determination/Approve: 30 days or as outlined in Contract Documents. 	DA or their designee*	7 days	Submit RDA or CCR
Confirmation of Verbal Instruction (COVI)	Routine field issues, within the framework of the Contract, Contractor resolves through negotiation with the Department's field personnel.	Department's Appropriate field personnel	<ul style="list-style-type: none"> • Confirmation: 1 day² 	DA or their designee	7 days	Submit Request for RDA
Request for Information (RFI)	Contractor needs the Department to supply information to provide better understanding of or to clarify a certain aspect of the work.	Department's Designated Project Manager	<ul style="list-style-type: none"> • Action: 14 days (or appropriate Action Plan) 	DA or their designee*	7 days	Submit RDA or CCR
Request for Dept. Action (RDA)	Contractor needs the Department to take certain action Contractor feels is required for proper completion of a portion of the Work or the project.	Department's Designated Project Manager	<ul style="list-style-type: none"> • Acknowledge: 3 days¹ • Action: 14 days (or appropriate Action Plan) 	DA or their designee*	7 days	Submit CCR
Contract Change Request (CCR)	Contractor needs the Department to make an adjustment to the Contract because of excusable and/or compensable events, instructions that have or have not been given or other work that will require time and/or cost beyond that specified or envisioned within the original Contract.	Department's Designated Project Manager	<ul style="list-style-type: none"> • Acknowledge: 3 days¹ • Action: 30 days (45 days if federal oversight project) 	DA or their designee*	7 days	Claims process

¹ Process initiated on the last business day of a week shall be acknowledged before 5 pm on the next VDOT business day.

² The absence of a written confirmation from the Department to a Contractor's written request for confirmation of a verbal instruction within the time required shall constitute confirmation of the verbal instruction.

TABLE I-2B
PROCESS GUIDELINES FOR REQUESTS GENERATED BY THE OWNER

Process	Situation	Normal resolution process		Escalated process		Process if no resolution
		By	Within (calendar days)	By	Within	
1. RFI	Department requests the Contractor to supply information to provide better understanding of or to clarify a certain aspect of the work. (RFI)	Contractor's Project Superintendent	<ul style="list-style-type: none"> Action: 14 days (or appropriate written Action Plan) 	Contractor's Project Manager	7 days	Submit RCA or Issue Unilateral Change order
2. RCA	Department requests the Contractor to take certain action(s) that is/are in the best interests of the project and/or is/are required for proper completion of a portion of the work or the project. (RCA)	Contractor's Project Superintendent	<ul style="list-style-type: none"> Response or Action to safety and environmental issues: 1 day Otherwise acknowledge: 3 days¹ Action: 14 days (or appropriate Action Plan) 	Contractor's Project Manager	7 days	Issue Unilateral Change order
3. Unilateral Change order	Department orders the Contractor to perform work beyond that specified or envisioned in the original Contract and undertakes action(s) to make an adjustment to the Contract.	Contractor's Project Superintendent	<ul style="list-style-type: none"> Acknowledge: 3 days¹ Action: 30 days 	CEO or their designee**	7 days	Claims or termination process

¹ Process initiated on the last business day of a week shall be acknowledged before 5 p.m. on next project business day.

105.04—Gratuities

~~Gifts, gratuities, or favors~~*The Contractor and its subcontractors and suppliers shall not be given offer, give or offered by confer upon any of the Contractor to Department's employee or personnel of the Department. A gift, gratuity any gifts, gratuities, payments, loans, subscriptions, advances, deposits of money, services, favors, or favor of any nature whatsoever anything of more than nominal value, present or offer of such by the Contractor to personnel promised, unless consideration of the Department shall be a violation of this provision substantially equal or greater value is exchanged.*

The Contractor shall not employ any personnel of the Department for any services without the *Engineer's* prior written consent ~~of the Engineer.~~

If the Engineer determines after investigation that the Contractor or the Contractor's employees, representatives, or agents of any person acting in his behalf have violated this ~~provision~~*Section*, the ~~Contractor~~*Engineer* may, at ~~the his~~ discretion ~~of~~, *disqualify* the ~~Chief Engineer, be disqualified~~*Contractor* from bidding on future contracts with the Department for a period of six months from the date of the ~~Chief Engineer's~~ determination of such a violation. Any implicated employees, agents, or representatives of the Contractor may be prohibited from working on any contract ~~awarded by the Department~~ *awards* for the period of *the Contractor's* disqualification.

105.05—Character of Workers, Work Methods, and Equipment

(a) Workers

Workers shall have sufficient skill and experience to perform properly the ~~work~~*Work* assigned to them. Workers engaged in special or skilled work shall have sufficient experience in such work and in the operation of equipment required to perform it properly and satisfactorily. *The term "workers" means the Contractor's employees, its subcontractors at any tier, or any of their respective employees.*

~~Any person employed by the~~*The Contractor or* ~~shall immediately remove from the project~~ any ~~subcontractor~~*workers* who, in the *Engineer's* opinion ~~of the Engineer, does, do~~ not perform ~~his~~*their* work in a proper ~~and~~, skillful *and satisfactory* manner or ~~is~~*are* intemperate or disorderly ~~shall, when directed in writing by the~~. *The Engineer, be removed by shall direct the Contractor or subcontractor employing the person and to do so in writing and such workers* shall not be employed again on any portion of the ~~work~~*Work* without the *Engineer's* written approval ~~of the Engineer.~~. If the Contractor fails to *immediately* remove the ~~person~~*workers*, or furnish suitable and sufficient ~~personnel~~*workers* for ~~proper~~*satisfactory* prosecution of the ~~work~~*Work*, the Engineer may withhold all monies that are or may become due the Contractor and may suspend the ~~work~~*Work* until the Contractor has complied with the Engineer's directive.

(b) Equipment

Equipment shall be of sufficient size and *quantity, and* in such *good* mechanical condition as to comply with the requirements of the ~~work~~*Contract* and *to* produce a satisfactory quality of work. Equipment shall be such that no damage to the roadway, adjacent property, other highways, or ~~to~~*no* danger to the public, will result from its use. The Engineer may order the removal and require replacement of unsatisfactory equipment.

(c) Work Methods

When methods and equipment to be used by the Contractor are not prescribed in the Contract, the Contractor is free to use whatever methods or equipment he feels will accomplish the ~~contract work~~ **Work** in conformity with the requirements of the Contract.

When the Contract specifies that construction be performed by the use of particular methods and equipment, they shall be used unless others are authorized by the Engineer. If the Contractor desires to use a different method or type of equipment, he may request permission from the Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment he proposes to use and an explanation of the reasons for desiring to make the change. If permission is not given, the Contractor shall use the specified methods and equipment. If permission is given, it will be on the condition that the Contractor shall be fully responsible for producing construction work in conformity with ~~contract~~ **Contract** requirements. If, after trial use of the substituted methods or equipment, the Engineer determines that the work produced does not *strictly* conform to the requirements of the Contract, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining construction with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of the specified quality or take such other corrective action as the Engineer may direct. No change will be made in the basis of payment for the construction items involved or the ~~contract~~ **Contract** time limit as the result of authorizing or denying a change in methods or equipment under these provisions.

105.06—Subcontracting

~~No portion of the Contract shall be subcontracted or otherwise disposed of without the written consent of the District Administrator or his designee.~~

- (a) No portion of the Contract shall be subcontracted or otherwise disposed of without the written consent of the Engineer, except for work that is \$25,000 or less per subcontractor, where the cumulative total of the sublets not requiring the Engineer's written consent will not exceed 10 percent of the original Contract amount. This will not, however, waive the requirements for prequalification, and will be considered part of the 70percentof the Contract amount that the Contractor is allowed to subcontract. The Contractor shall notify the Engineer of the name of the firm to whom the work will be subcontracted, and the amount and items of work involved. Such notification shall be made and verbal approval given by the Engineer prior to the subcontractor beginning work.*
- (b) The Contractor shall perform with his own organization work amounting to not less than 30 percent of the ~~original contract value unless otherwise noted in the Contract~~total original Contract amount, excluding any specialty items designated by the Department. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original Contract amount before computing the amount of work required to be performed by the Contractor's own organization.*

The term "perform work with its own organization" refers to workers employed or leased by the Contractor, and equipment owned or rented by the Contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the Contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the Contractor meets all of the following conditions:

1. *The Contractor maintains control over the supervision of the day-to-day activities of the leased employees;*
 2. *The Contractor remains responsible for the quality of the work of the leased employees;*
 3. *The Contractor retains all power to accept or exclude individual employees from work on the project; and*
 4. *The Contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.*
- (c) *The Contractor shall not subcontract any part of the ~~contract~~Contract work to a contractor who is not prequalified with the Department in accordance with the requirements of Section 102.01, unless otherwise indicated in the Contract. This restriction does not apply to ~~contract~~Contract specialty items, consultants, manufacturers, suppliers, or haulers. Consent to subcontract or otherwise dispose of any portion of the ~~contract~~Contract work shall not relieve the Contractor of any responsibility for the *satisfactory* fulfillment of the entire Contract. *All subcontracts shall be evidenced by written binding agreements that shall be produced upon request to Department.**
- (d) *The Contractor shall immediately remove from the project any subcontractors at any tier who, in the Engineer's opinion, do not perform their work in a proper, skillful and satisfactory manner or are intemperate or disorderly. The Engineer shall direct the Contractor to do so in writing and such subcontractors shall not be employed again on any portion of the Work without the Engineer's written approval.*

105.07—Cooperation of Contractor

The Contractor shall give the ~~work~~Work the constant attention necessary to facilitate quality and progress, and shall fully cooperate with the Engineer, Inspector, and other contractors involved in the prosecution of the ~~work~~Work. If any portion of a project is located within the limits of a municipality, military installation, or other federally owned property, the Contractor shall cooperate with the appropriate officials and *their* agents in the prosecution of the ~~work~~Work to the same extent as with the Department.

The Contractor shall have on the project at all times during prosecution of ~~work~~*the Work* a competent Superintendent *who is* capable of reading and understanding the plans and Specifications~~—and~~, experienced in the type of work being performed, *and* who shall receive instructions from the Engineer or his authorized representatives. The Superintendent shall have full authority to execute the orders and directions of the Engineer without delay and supply promptly such materials, equipment, tools, labor, and incidentals as may be required.

105.08—Cooperation With Regard to Utilities

The adjustment of utilities consists of the relocation, removal, replacement, rearrangement, reconstruction, improvement, disconnection, connection, shifting, or altering of an existing utility ~~facility~~ in any manner.

Existing utilities within the Department's knowledge at the design stage of the project will be indicated on the plans. Where possible, *the Department will make* arrangements for adjusting these

utilities will be made by the Department prior to project construction. ~~Existing~~ *The utility owner will adjust existing* private and public utilities that require adjustment ~~will be adjusted by the utility owner or if denoted in, unless~~ the Contract ~~shall be adjusted by~~ *requires* the Contractor *to perform such adjustment* as a ~~contract pay~~ item. The new location of such utilities will not normally be shown on the plans. Some utilities may remain or be adjusted within the construction limits simultaneously with project construction operations.

The Contractor shall coordinate project construction with planned utility adjustments and take all necessary precautions to prevent disturbance of the ~~utility facilities~~ *utilities*. The Contractor shall report to the Engineer any failure on the part of the utility owner to cooperate or proceed with the planned utility adjustments.

The Contractor shall perform ~~contract~~ *Contract* utility work in a manner that will cause the least inconvenience to the utility owner and those being served by the utility owner.

~~Existing~~ *The Contractor shall protect existing*, adjusted, or new ~~utility facilities~~ *utilities* that are to remain within the right of way ~~shall be properly protected by the Contractor~~ *so as* to prevent disturbance or damage resulting from construction operations. If during prosecution of the work the Contractor encounters an existing utility that requires adjustment he shall not interfere with the utility but shall take the proper precautions to protect the ~~facility~~ *utility* and shall promptly notify the Engineer of the need for adjustment.

If the Contractor desires the temporary or permanent adjustment of utilities for his own benefit, he shall conduct all negotiations with the utility owners and pay all costs in connection with the adjustment.

~~When delays, inconvenience, or damage sustained by the Contractor are deemed by him to be attributable to interference by utility appurtenances, or the operation of moving the same, written requests from the Contractor for an extension of time will be considered provided there has been a delay to either the critical path or the controlling item of work. Such delays shall be demonstrated by an impact analysis of the Contractor's schedule.~~

~~If it is determined that interference by utility appurtenances caused a delay of such magnitude or otherwise altered project operations so as to increase significantly the Contractor's cost of performing the work, the Engineer will consider additional compensation limited to the actual costs incurred by the Contractor. Actual costs will not include unabsorbed office overhead unless the delay or impact adversely affects the critical path or controlling item of work to such extent that the fixed completion date is delayed. Prior to the Engineer's review, the Contractor shall present sufficient documentation to substantiate fully the request for additional compensation. Such documentation shall be furnished in sufficient detail as requested by the Engineer. Nothing herein shall be construed as requiring the payment of additional compensation.~~

If the Contractor determines that delays due to utility adjustments impact the Contract amount or Contract time, or both, the Contractor shall provide written notice according to Sections 108.04 or 109.05, or both.

105.09—Cooperation among Contractors

The Department may at any time contract or approve concurrent contracts for performance of other work on, near, or within the same geographical area of the work specified in an existing contract. Contractors shall not impede or limit access to such work by others.

When separate contracts are awarded within the limits of one project, contractors shall not hinder the work being performed by other contractors. Contractors working on the same project shall cooperate with each other. In case of dispute, the Engineer will be the referee, and his decision will be *final and binding* on all parties.

When contracts are awarded to separate contractors for known concurrent construction in a common area, the contractors, in conference with the Engineer, shall establish a written joint schedule of operations. The schedule shall be based on the limitations of the individual contracts and the joining of the work of one contract with the others. The schedule shall set forth the approximate dates and sequences for the several items of work to be performed and shall ensure completion within the ~~contract~~*Contract* time limit. The schedule shall be submitted to the Engineer for review and approval no later than 30 days after the award date of the later contract and prior to the first monthly progress estimate. The schedule shall be agreeable to, signed by, and binding on each contractor. The Engineer may allow modifications of the schedule when benefit to the contractors and the Department will result.

Any modification of the schedule shall be in writing, mutually agreed to and signed by the contractors, and shall be binding on the contractors in the same manner as the original agreement.

If the contractors fail to agree on a joint schedule of operations, they shall submit their individual schedules to the Engineer, who will prepare a schedule that will be binding on each contractor.

The joint schedule and any modification thereof shall become a part of each contract involved. The failure of any contractor to abide by the terms of the joint schedule will be justification for declaring the contractor in default of his Contract.

Each contractor shall assume all liability, financial or otherwise, in connection with his Contract and shall protect and save harmless the Commonwealth from any and all damages and claims that may arise because of any inconvenience, delay, or loss he experiences as a result of the presence and operations of other contractors working in or near the work covered by his Contract. He shall also assume all responsibility for any of his work not completed because of the presence or operation of other contractors *working in or near the work covered by his Contract. If the presence and operations of other contractors prevents the Contractor from gaining access to a critical activity within the time scheduled for its performance, the Contractor will be entitled to an excusable, non-compensable time extension, provided that such failure to gain access is not due to any fault or negligence of the Contractor, or due to the Contractor's failure to cooperate according to this Section.*

~~Except for an extension of the contract time limit, the Department will not be responsible for any inconvenience, delay, or loss experienced by the Contractor as a result of his failure to gain access to the work at the time contemplated. When the failure to gain access is not due to any fault or negligence of the Contractor, an extension of the contract time limit will be allowed on the basis of the amount of time delayed.~~

The Department will not assume any responsibility for acts, failures, or omissions of one contractor that delay the work of another except as provided herein.

105.10—Plans and Working Drawings

(a) General

The Contractor will be supplied with two copies of the executed Contract. The Department's Road and Bridge Specifications and the Department's Road State and Bridge

Standards ~~will be~~ *are available on the Department's website and are* available for purchase by the Contractor from the office of the Contract Engineer.

(b) **Plans**

Plans will be furnished to the Contractor without charge as follows:

Original Contract Amount in Dollars		Number of Plan Sets	
From	To	Full Size	Half Size
0	1,999,999	4	6
2,000,000	4,999,999	6	8
5,000,000	9,999,999	8	10
10,000,000+	<i>or more</i>	10	10

Plan revisions issued while the project is under construction will be furnished to the Contractor in the same sizes and number

The Contractor shall keep one complete set of plans, standard drawings, ~~contract~~ *Contract* assemblies, and Specifications available on the project at all times. For maintenance projects, certain sign projects, and other projects having no field office or on which the Contractor has no office, the Contractor shall keep one complete set of plans, ~~contract~~ *Contract* assemblies, and Specifications with him while prosecuting the work. In the event items of work are required as per the Standard Drawings, the Contractor shall also keep the appropriate Standard Drawings on the project during the performance of that work.

Plans consisting of general drawings and showing such details as are necessary to give a comprehensive understanding of the work specified will be furnished by the Department. Except as otherwise shown on the plans, dimensions shown on the plans are measured in the respective horizontal or vertical planes. Dimensions that are affected by gradients or vertical curvatures shall be adjusted as necessary by the Contractor to accommodate actual field conditions and shall be specifically denoted as "field adjusted" on the working drawings. Failure on the part of the Contractor to so denote field adjustments on the working drawings shall not relieve the Contractor of the responsibility to accommodate and incorporate such existing conditions into the finished work.

(c) **Working Drawings**

The Contractor shall furnish *nine sets of detailed* working drawings to the extent, ~~detail and number as may be~~ *with the details* required by the Contract ~~requirements. The Contractor shall submit to the Department for review nine sets of required working drawings~~ *Documents* unless otherwise indicated in the Contract ~~requirements~~ *Documents*. Working drawings and submittals shall be identified by the complete state project and job designation number, as well as the federal project number if applicable. Items or component materials shall be identified by the specific ~~contract~~ *Contract* item number and Specification reference in the Contract. Any changes from the requirements of the Contract shall be specifically denoted, together with justification, and submitted to the Engineer for review. Working drawings shall be submitted in sufficient time to allow for review, discussion and correction prior to the beginning of the work they reference- *and avoid causing any delay to the Work*. Work shall not be performed or materials ordered prior to the completion of the Department's review of the working drawings.

Reviewed working drawings will be returned to the Contractor within 30 days from the date of receipt by the Department. If a railroad, municipality, or other entity as specified in the Contract or on the plans is required to review the working drawings, the reviewed working

drawings will be returned within 45 days from the date of receipt by the Department. If the working drawings are not returned by the time specified, no additional compensation will be allowed except that an extension of time in accordance with the requirements of Section 108.04 will be considered if the work element detailed by the working drawings is on the project critical path or involves a controlling item of work. Three sets of working drawings marked with any suggested modifications or comments will be returned to the Contractor. The other sets will be retained by the Department.

The Department's review of the Contractor's working drawings will ~~relate~~ *be limited to evaluation for* conformance ~~to~~ *with* the requirements of the Contract. The *Department's* review will not relieve the Contractor from responsibility for errors in the working drawings or from complying with the requirements of the Contract for a fully functional finished work item as specified or designed.

Deviations from the Contract requirements initiated by the Contractor shall be requested in writing and clearly identified on the working drawings. Explicit supporting justification shall be furnished specifically describing the reason for the requested deviations, as well as any impact such deviations shall have on the schedule of work. Failure to address time or other impacts associated with the Contractor's request will be cause for rejection of the Contractor's request. Deviations from the Contract requirements shall not be made unless authorized by the Engineer. ~~If authorized by the Engineer, such~~ *Such* authorization shall not relieve the Contractor from the responsibility for complying with the requirements of the Contract for a fully functional finished work item as specified or designed.

If working drawings detailing a change(s) initiated by the Contractor require more than two resubmissions or revisions, the cost of additional reviews by the Department or its designated representative(s) will be assessed to the Contractor.

~~Upon~~ *The Contractor shall submit as-built working drawings upon* completion of the requested work, working drawings indicating the actual as-constructed field conditions, if required, shall be supplied to the Department *Work*.

The cost of working drawings furnished by the Contractor shall be included in the cost of appropriate ~~contract~~ *Contract* items.

The Contractor may authorize the fabricator in writing to act for him in matters relating to working drawings. Such authorization shall have the force and effect of any other representative of the Contractor's organization.

(Provide working drawings according to the following:

1). Steel Structures

Working drawings for steel structures, including metal handrails, shall consist of shop detail, erection, and other working drawings showing details, dimensions, sizes of units, and other information necessary for the fabrication and erection of metal work. ~~Such drawings shall be signed and sealed by a Professional Engineer, holding a valid license to practice engineering in the Commonwealth of Virginia.~~

(2). Falsework

Working drawings for falsework supporting a bridge superstructure shall be signed and sealed by a Professional Engineer, holding a valid license to practice engineering in the Commonwealth of Virginia.

(3). Concrete Structures and Prestressed Concrete Members

Working drawings for concrete structures and prestressed concrete members shall provide such details as required for the successful prosecution of the work and which are not included in the plans furnished by the Department. Drawings shall include plans for items such as prestressing strand details and elongation calculations, location of lift points, falsework, bracing, centering, form work, masonry, layout diagrams and bending diagrams for reinforcing steel when necessary or when requested. Such drawings shall be signed and sealed by a Professional Engineer, holding a valid license to practice engineering in the Commonwealth of Virginia.

(4). Lighting, signal and pedestal poles, overhead and bridge mounted sign structures, breakaway support systems, anchor bolts, framing units, panels, and foundations:

Prior to fabrication or construction, the Contractor shall submit for review one original and six copies of each working drawing and design calculation for lighting, signal and pedestal poles, overhead and bridge mounted sign structures, breakaway support systems, anchor bolts, framing units, panels, and foundations. All sheets of these submittals shall include the Professional Engineer's signature and seal. Certification for foundations will be required only when the designs are furnished by the Contractor. The designs shall be in accordance with the specific editions of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals as required in Section 700. Such designs shall be signed and sealed by a Professional Engineer, holding a valid license to practice engineering in the Commonwealth of Virginia.

(5). Reinforced Concrete Pipe

When specified, and prior to manufacture of reinforced concrete pipe, the Contractor shall furnish to the Department a certification of the acceptability of the design of such pipe, as determined from a review that has been signed and sealed by a Professional Engineer holding a valid license to practice engineering in the Commonwealth of Virginia. Such certification shall cover all design data, supporting calculations and materials. Pipe designs previously certified or approved by the Department will not require recertification.

105.11—Conformity with Plans and Specifications

~~Values for~~ *All* materials to be used in the ~~work~~ *Work* shall conform to the ~~specified~~ *qualities, technical requirements*, values or range of values specified in the Contract. Less than complete conformity may be tolerated if obtaining exact or complete conformity would not be feasible and if authorized *in writing* by the Engineer.

Permissible tolerances for the elevation of subgrade and finished grade, and for the thickness of the various courses of pavement structure are specified in ~~these Specifications~~ *the Contract Documents*. If permissive tolerances are exceeded, or if consistent deviations from the plans or abrupt changes in grade occur, even though within the tolerances, the affected areas shall be reconstructed to conform to the specified tolerance and provide a smooth riding surface. When it is not feasible to reconstruct the areas, payment will be made in accordance with the requirements of the applicable specification for each material placed or adjusted in accordance with the provisions of Section 105.18.

When the plans require the finished surface to tie into any structural item whose elevation is fixed, the elevation of the finished surface must coincide with the elevation of the structural item.

105.12—Coordination of Plans, Standard Drawings, Specifications, Supplemental Specifications, Special Provisions, and Special Provision Copied Notes

The plans, Standard Drawings, ~~these Specifications, supplemental specifications, special provisions, special provision copied notes~~ *Supplemental Specifications, Special Provisions, Special Provision Copied Notes*, and ~~supplementary documents~~ *other Contract Documents defined in Section 103.06* are parts of the Contract. ~~These Contract documents are defined in Section 101—Definitions.~~ A requirement occurring in one *Contract Document* shall be as binding as though occurring in all. ~~They~~ *The Contract Documents* are intended to be complementary, and to *include*, describe and provide *all items necessary* for ~~at the Contractor's proper and complete work—performance of the Work.~~

In case of a discrepancy, the following order of priority will apply, with the highest governing item appearing first and the least governing item appearing last:

- (a) ~~Special provision copied notes~~ *Provision Copied Notes*. The ~~pay~~ *Contract* items and ~~pay~~ *units and unit prices* listed in the ~~proposal~~ *Contract's Schedule of Items* have the same status as ~~special provision copied notes~~ *Special Provision Copied Notes*.
- (b) Special provisions
- (c) Plans
- (d) Supplemental Specifications.
- (e) Specifications
- (f) *Revised* Standard Drawings.
- (g) *Standard Drawings*

Calculated dimensions, unless obviously incorrect, will govern over scaled dimensions.

~~Sketches, drawings~~ *Drawings (with the exception of Standard Drawings and revised Standard Drawings) sketches*, general notes and other written information that are not included in ~~special provisions~~ *Special Provisions* or ~~special provision copied notes used in No Plan and Minimum Plan Concept projects~~ *Special Provision Copied Notes* will have the same status as plans.

This order of priority shall not apply when work is required by one part of the Contract but omitted from another part or parts of the Contract.

If the foregoing order of priority does not resolve a discrepancy, the Contractor shall provide the better quality or greater quantity of the Work, or comply with the more stringent requirement, or both, in accordance with the Engineer's interpretation.

The Contractor shall not take advantage of any obvious or apparent *ambiguity, conflict*, error or omission in the plans or ~~Specifications~~ *the Contract Documents*. If *after beginning work* the Contractor discovers an *ambiguity, conflict*, error or omission *in the Contract Documents*, he shall immediately notify the Engineer *and before proceeding further with the affected work*. The Engineer will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the Contract.

105.13—State Force Construction Surveying

(a) General Description:

This work shall consist of the Department performing all surveying and providing surveying and stakeout sketches and information as detailed herein for the successful prosecution of work as indicated on the plans and as directed by the Engineer. Stakeout work will be in accordance with the details and requirements of the Department's Survey Manual and the provisions herein. Survey services will be provided to the extent detailed herein for Construction ~~and for~~, Minimum Plan, *and No plan* projects.

(b) Request for Survey Services:

Once the Contractor requests survey services, the Department will begin the requested work within 3 working days. The Contractor shall not expect the Department survey party to work in the field during adverse weather conditions that could be detrimental to the survey equipment or paperwork, therefore the Contractor shall plan the need for such services accordingly.

It shall be the Contractor's responsibility to preserve all Department furnished centerline or baseline controls, references and location benchmarks. After initial stakeout, an hourly charge equal to the current hourly rate for Department survey services per district will be billed to the Contractor for resetting stakes where the cause for the resetting of such stakes is due to the fault of the Contractor or his operations. This rate will also apply to travel time to and from the project.

If the Contractor requests stakes after the initial staking and he is not ready to accommodate such work, the Contractor will be billed the hourly rate for Department survey services per district measured in travel time to and from the project. Such fees will be billed to the Contractor on the next monthly estimate.

(c) Contractor Responsibility for Examination of Data:

~~It shall be the responsibility of~~ *For Construction or Minimum Plan projects*, the Contractor ~~to examine~~ *shall be responsible for examining* all surveying work ~~provided by that~~ the Department *provides* for accuracy. Should a disagreement involving the accuracy of stakeout or survey work arise during construction, the Contractor shall within 24 hours provide written notice to the Engineer, precisely describing and documenting the discrepancy. *The Contractor's failure to furnish written notice of such discrepancy within the timeframe specified will bar any claim for time impact or costs.* The Engineer will determine the validity of the Contractor's assertion in the notice, respond to the Contractor within 3 working days of receipt of the Contractor's notice, and provide direction on how to proceed. ~~The~~ *When the Contractor provides the written notice within the timeframe specified, the* Engineer will ~~give consideration to an~~ *consider a time* extension of time in accordance with the requirements of *according to* Section 108.04 of the Specifications, or provide additional compensation as deemed appropriate after documentation and evidence *according to the Engineer's satisfaction if the following occurs:* *109.05.*

- ~~1. There are delays to the project as a result of inaccurate stakeout information provided or a controlling item of work by the Department where such delays adversely impact the critical path of the work or,~~

- ~~2. where extra expense is encountered by the Contractor to correct elements of defective survey work by the Department, and~~
- ~~3. where written notice is provided by the Contractor within the timeframe specified. Failure to furnish written notice of such a discrepancy within the timeframe specified will invalidate any later claim for time impact or costs by the Contractor unless specifically waived by the Engineer.~~

For No Plan projects, the Examination of Data specified above is not required.

(d) **Survey Services Furnished:**

~~1. Construction (C) Projects:~~

~~a. Survey Stakeout Descriptions:~~

~~Unless otherwise stated, the Department will provide required horizontal and vertical controls for the proper project construction stakeout of the project. The Contractor shall preserve all horizontal and vertical controls furnished by the Department.~~

~~The following surveying work will be performed by the Department:~~

- ~~(1) Digital Terrain Model (DTM) and Construction Cross Sections: Original location Digital Terrain Model (DTMs) will be provided by the Department and will serve as a basis of payment for earthwork. The Contractor shall be responsible for taking construction DTMs or cross sections of areas that, in their determination, do not agree with the Department furnished original location DTMs. The Contractor shall submit the disputed DTM information to the Engineer for verification prior to any excavation by the Contractor in these alleged areas of change. The DTM information furnished by the Department and submitted by the Contractor shall be compatible to the Department's current DTM format.~~
- ~~(2) Borrow Pits: All borrow pit DTM's or cross sections, originals and finals, will be secured by the Department. The Contractor is encouraged to also secure DTM's or cross sections of borrow areas. A claim of discrepancy in borrow volume will not be considered by the Engineer unless survey data was obtained and submitted by the Contractor to substantiate his claim.~~
- ~~(3) Horizontal and Vertical Control for Bridges: Certified plats, field notes, coordinates and computations will be furnished to the Contractor by the Department prior to the Contractor beginning work on these structures.~~
- ~~(5) Horizontal and Vertical Controls for all Box Culverts, all Pipe Culvert Installations (including single and multiple line installations) with total hydraulic openings equivalent to 12.6 square feet and larger, and for all closed systems such as storm sewers, and sanitary sewers regardless of size: The Department will stake all such installations. Certified Plats will be furnished to the Contractor prior to the Contractor beginning work on these culvert structures. The notes, coordinates, or computations used to support the platted information will be furnished to the Contractor with the certified plat. For the purposes of identifying those pipe culvert installations please refer to the areas (hydraulic openings) shown in the PB-1 Standards for the respective sizes of pipes specified on the plans. Where multiple lines of~~

pipes are shown, the areas of the pipe sizes will apply to the total areas of the number of lines specified in the plans. For box culverts refer to the sizes shown in the BC-1 Standards to determine areas of total hydraulic opening.

~~(6) **Horizontal and Vertical Control for Pipe Culvert Installations (including single and multiple line installations) having total hydraulic openings equivalent to 3.1 square feet and up to 12.5 square feet:**~~ The Department will be responsible for staking horizontal and vertical control for pipe culvert installations having a total hydraulic opening equivalent to 3.1 square feet and up to 12.5 square feet. Sketches will be furnished to the Contractor prior to the Contractor beginning work on these culvert structures. For the purposes of identifying those pipe culvert installations please refer to the areas (hydraulic openings) shown in the PB-1 Standards for the respective sizes of pipes specified on the plans. ~~Where multiple lines of pipes are shown, the areas of the pipe sizes shall apply to the total areas of the number of lines specified in the plans. For box culverts refer to the sizes shown in the BC-1 Standards to determine areas of total hydraulic opening.~~

~~(7) **Horizontal and Vertical Control for additional centerlines or baselines for roadways, ramps, loops and connections:**~~ Upon written request from the Contractor the Department will provide horizontal and vertical controls for additional centerlines or baselines for roadways, ramps, loops and connections.

~~(8) **Grading and paving construction:**~~ The Department will provide fine grade or other grade stakes required for the construction of the project as the work progresses except as stated herein.

~~Fine grade stakes will be set on all projects on which the plans show a definite grade line. Fine grade hubs will be set on at least one side with distances and grades referenced to the finished centerline grade. Typically, on curves, the Department will provide the distances and elevations to each edge of pavement and centerline through the transitions and the distances and elevations to the edge of pavement only (straight line super) through full super portions of the curve.~~

~~On projects where grading and paving is performed under the same contract, only one set of fine grade stakes will be provided to the Contractor. Fine grade stakes may be used for fine grade and paving grade.~~

~~On Secondary Road projects, fine grade stakes will be provided by the Department only on those projects having curb and gutter or as directed by the Engineer.~~

~~Special design ditches will be staked with an offset and cut to the centerline of the ditch. Radius points for pavement flares at connections will be staked only if requested by the Contractor.~~

~~The Department will set all slope stakes. Upon written request from the Contractor cutfill sheets for slope stakes will be furnished by the Department to the Contractor within 3 working days of the survey party's arrival at the project site or a timeframe agreed upon by the Contractor and the Engineer after reviewing the length and complexity of the project.~~

~~(9) **Right of way and boundary stakeout affecting property ownership:**~~

~~Right of Way will be staked by the Department prior to the start of the project. Right of way stakes will be placed at a minimum of 100 foot intervals on each side of the roadway or as directed by the Engineer and the stakes will be marked with both the station and offset back to centerline. All final boundary stakeout will be performed by the Department's survey party.~~

~~(10) **Setting right of way monuments:**~~ Final right of way monumentation will be performed by the Department in accordance with the following:

~~a) **RM 1:** The Department will furnish and install RM 1 right of way monuments in accordance with the Road and Bridge Standards.~~

~~b) **RM 2:** The Department will furnish and install RM 2 right of way monuments and optional locator posts, including the required caps, in accordance with the Road and Bridge Standards.~~

~~c) **Other monumentation:** The Department will determine if an alternative form of permanent monumentation will be used if RM 1 or RM 2 monuments are unsuitable for marking the right of way at various locations. The Department will indicate this alternative monument usage on the final as built plan in accordance with the Department's Survey Manual *provides*.~~

Where available, electronic data files along with paper sketches and drawings will be furnished by the Department when requested in writing by the Contractor. All electronic data files furnished to the Contractor will be in the format of the Department's current computer hardware and software, or a format fully compatible with such hardware and software.

Additional surveying work and supplemental layout work shall be performed by the Contractor as needed to successfully complete the ~~work~~*Work*. The Contractor shall provide and protect temporary construction benchmarks within the construction limits. Temporary construction benchmarks shall be located not farther than 500 feet apart for the total length of the project or as indicated on the plans. Temporary construction benchmarks that are disturbed during construction operations shall be reestablished by the Contractor at no additional cost to the Department. All drawings, field notes, and computations from such survey work performed by the Contractor shall be submitted to the Engineer.

~~2. **Minimum Plan (M)**~~*The Department will perform the following surveying work based on the type of project.*

*1. **Construction (C) Projects.***

~~a. **Survey Stakeout Descriptions:**~~

~~Unless otherwise stated, the Department will provide required horizontal and vertical control for the proper construction stakeout of the project. The Contractor shall preserve all horizontal and vertical controls furnished by the Department.~~

The following surveying work will be performed by the Department:

- ~~(1) **Digital Terrain Model (DTM) and Construction Cross Sections:** “M” projects are based on plan quantities; therefore DTM and construction cross sections are not required, except for borrow pits.~~

~~Should the Engineer determine at any time that an actual measurement is warranted, the Department will make the necessary measurement in the field.~~

- ~~(2)~~**a. Digital Terrain Model (DTM) and Construction Cross-Sections:** *The Department will provide original location Digital Terrain Model (DTMs), which will serve as the basis of payment for earthwork. The Contractor shall be responsible for taking construction DTMs or cross-sections of areas where the Contractor does not agree with the Department-furnished original location DTMs. The Contractor shall submit its DTM information to the Engineer for verification prior to any excavation by the Contractor in these alleged areas of disagreement. All DTMs shall be compatible to the Department’s current DTM format.*
- b. **Borrow Pits:** ~~All~~*The Department will provide all borrow pit DTM’s, originals and finals, will be secured by DTMs or cross-sections, both original and final. The Engineer will not consider any alleged discrepancy in borrow volume unless the Contractor substantiates the Department. The Contractor is encouraged to also secure DTM’s alleged discrepancy with independent DTMs or cross-sections of borrow areas. A claim of discrepancy in borrow volume will not be considered by the Engineer unless survey data was obtained by the Contractor to substantiate his claim both original and final.*
- ~~(3)~~**c. Horizontal and vertical control****Vertical Control for bridges:** ~~Certified~~**Bridges:** *The Department will furnish certified* plats, field notes, coordinates and computations ~~will be furnished to the Contractor prior to the Contractor beginning work on these structures.~~
- ~~(4)~~**d. Horizontal and Vertical Control****Controls for all Box Culverts, all Pipe Culvert Installations (including single and multiple line installations) with a total hydraulic openings equivalent to 12.6 square feet and larger, and for all closed systems such as storm sewers, and sanitary sewers regardless of size:** ~~The Department will stake all such installations. Certified Plats for these stakeouts will be furnished to the Contractor prior to the Contractor beginning work on these culvert structures. The~~ *and furnish certified plats, including notes, coordinates, or computations used to support the platted information will be furnished to the Contractor with the certified plat. For the purposes of identifying those pipe culvert installations please refer to the areas (hydraulic openings) shown in the PB-1 Standards for the respective sizes of pipes specified on the plans. Where multiple lines of pipes are shown, the areas of the pipe sizes will apply to the total areas of the number of lines specified in the plans. For box culverts refer to the sizes shown in the BC-1 Standards to determine areas of total hydraulic openings.*
- ~~(5) **Horizontal and Verticals Control for Pipe Culvert installations (including single and multiple line installations) having total hydraulic openings equivalent to 3.1 square feet and up to 12.5 square feet:**~~ *The Department will be responsible for staking horizontal and vertical controls for pipe culvert installations having a total hydraulic opening equivalent to 3.1 square feet and up to 12.5 square feet. Sketches will be furnished to the Contractor, prior to the Contractor beginning work on these culvert structures. For the purposes of*

identifying those pipe culvert installations please refer to the areas (hydraulic openings) shown in the PB-1 Standards for the respective sizes of pipes specified on the plans. Where multiple lines of pipes are shown, the areas of the pipe sizes will apply to the total areas of the number of lines specified in the plans. For box culverts refer to the sizes shown in the BC-1 Standards to determine areas of total hydraulic opening.

- e. **Horizontal and Vertical Control for Pipe Culvert Installations (including single and multiple line installations) having total hydraulic openings equivalent to 3.1 square feet and up to 12.5 square feet:** *The Department will stake horizontal and vertical control for pipe culvert installations having a total hydraulic opening equivalent to 3.1 square feet and up to 12.5 square feet. The Department will furnish sketches prior to the Contractor beginning work on these culvert structures. For the purposes of identifying those pipe culvert installations please refer to the areas (hydraulic openings) shown in the PB-1 Standards for the respective sizes of pipes specified on the plans. Where multiple lines of pipes are shown, the areas of the pipe sizes shall apply to the total areas of the number of lines specified in the plans. For box culverts refer to the sizes shown in the BC-1 Standards to determine areas of total hydraulic opening.*
- ~~(6)f.~~ **Horizontal and Vertical Control for additional centerlines or baselines for roadways, ramps, loops and connections:** *Upon written request, the Department will provide horizontal and vertical controls for additional centerlines or baselines for roadways, ramps, loops and connections.*
- g. **Grading and paving construction:** *The Department will provide fine grade or other grade stakes required for the construction of all projects ~~the project as the work progresses~~ except as stated herein ~~as the work progresses~~. Slope stakes are not required on "M" projects.*

Fine grade stakes will be set on all projects on which the plans show a definite grade line. Fine grade hubs will be set on at least one side with distances and grades referenced to the finished centerline grade. Typically, on curves, the Department will provide the distances and elevations to each edge of pavement and centerline through the transitions and the distances and elevations to the edge of pavement only (straight-line super) through full super portions of the curve.

On projects where grading and paving is performed under the same contract, only one set of fine grade stakes will be provided to the Contractor. Fine grade stakes may be used for fine grade and paving grade.

On Secondary Road projects, fine grade stakes will be provided by the Department only on those projects having curb and gutter or as directed by the Engineer.

Special design ditches will be staked with an offset and cut to the centerline of the ditch. Radius points for pavement flares at connections will be staked only if requested by the Contractor.

The Department will set all slope stakes. Fine grade stakes will be set on all projects on which the plans show a definite grade line. Fine grade hubs will be set on at least one side with distances and grades referenced to the finished centerline grade. Typically, on curves, the Department will provide the distances and elevations to each edge of pavement and centerline through

~~the transitions and the distances and elevations to the edge of pavement only (straight line super) through full super portions of the curve.~~

~~On projects where grading and paving is performed under the same contract, only one set of fine grade stakes will be provided by the Department.. Fine grade stakes may be used for fine grade and paving grade.~~

~~On Secondary Road projects, fine grade stakes will be provided by the Department only on those projects having curb and gutter or as directed by the Engineer.~~

~~Special design ditches will be staked with an offset and cut to the centerline of the ditch. Radius points for pavement flares at connections will be staked only if requested by the Contractor.~~

~~(7) Upon written request from the Contractor cut/fill sheets for slope stakes will be furnished by the Department to the Contractor within 3 working days of the survey party's arrival at the project site or a timeframe agreed upon by the Contractor and the Engineer after reviewing the length and complexity of the project.~~

- ~~h.~~ **Right of way and boundary stakeout affecting property ownership:** -Right of Way will be staked by the Department prior to the start of the ~~job~~ *project*. Right of way stakes will be placed at a minimum of 100-foot intervals on each side of the roadway or as directed by the Engineer and the stakes will be marked with both the station and offset back to centerline. All final boundary stakeout will be performed by the ~~Department~~ *Department's* survey party.

- ~~(8).~~ **Setting right- of- way monuments:** Final right of way monumentation will be performed by the Department in accordance with the following:

- ~~a(1)~~ **RM-1:** The Department will furnish and install RM-1 right- of- way monuments in accordance with the Road and Bridge Standards.
- ~~b)~~ **(2) RM-2:** The Department will furnish and install RM-2 right- of- way monuments and optional locator posts, including the required caps, in accordance with the Road and Bridge Standards.
- ~~c)~~ **(3) Other monumentation:** The Department will determine if an alternative form of permanent monumentation will be used if RM-1 or RM-2 monuments are unsuitable for marking the right- of- way at various locations. The Department will indicate this alternative monument usage on the final as-built plan in accordance with the Department's Survey Manual.

2. *Minimum Plan (M) Projects.*

- a. *Digital Terrain Model (DTM) and Construction Cross-Sections:*** "*M*" projects are based on plan quantities; therefore DTM and construction cross-sections are not required, except for borrow pits.

Should the Engineer determine at any time that an actual measurement is warranted, the Department will make the necessary measurement in the field.

- b. *Borrow Pits: Same as for Construction (C) Projects.***

- c. *Horizontal and vertical control for bridges: Same as for Construction (C) Projects.*
 - d. *Horizontal and Vertical Control for all Box Culverts, all Pipe Culvert Installations (including single and multiple line installations) with a total hydraulic openings equivalent to 12.6 square feet and larger, and for all closed systems such as storm sewers, and sanitary sewers regardless of size: Same as for Construction (C) Projects.*
 - e. *Horizontal and Verticals Control for Pipe Culvert installations (including single and multiple line installations) having total hydraulic openings equivalent to 3.1 square feet and up to 12.5 square feet: Same as for Construction (C) Projects.*
 - f. *Horizontal and Vertical Control for additional centerlines or baselines for roadways, ramps, loops and connections: At certain locations and at the discretion of the Engineer, a minimum number of centerline grade stakes may be furnished by the Department from which the approximate depth of centerline cuts and fills may be obtained.*
 - g. *Grading and paving construction: Same as for Construction (C) Projects, except that slope stakes are not required on "M" projects*
 - h. *Right of way and boundary stakeout affecting property ownership: Same as for Construction (C) Projects.*
 - i. *Setting right of way monuments: Same as for Construction (C) Projects.*
3. **No Plan (N) Projects.**

The location of any reference points that the Department may have established, and any control data which the Department may have available will be provided to the Contractor upon request. The Department will be responsible for the accuracy of such reference points and control data.

105.14—Maintenance During Construction

(a) **Traffic Control**

1. The Contractor shall ~~prosecute his~~ *have at least one person on the project site during all work so operations who is currently certified* as to avoid obstructions to traffic to the greatest extent practicable. ~~The Contractor shall provide for a Traffic Control Supervisor (TCS) either by the safety and convenience of the general public and residents along the roadway and the protection of persons and property.~~

~~Highways closed to traffic shall be protected by barricades and other warning devices as required Department in Intermediate Work Zone Traffic Control, or by the Engineer. Barricades and warning devices shall be illuminated where required during periods of darkness and low visibility. The Contractor shall erect warning devices in advance of a location on the project where operations or obstructions may interfere with the use of the road by traffic and at all intermediate points where the new work crosses or coincides with an existing roadway. The Contractor shall maintain sign faces and reflective surfaces of warning devices in a clean and visible condition. The Contractor shall~~

~~cover or remove signs when the messages thereon are not applicable. Barricades, warning signs, lights, temporary signals, and other protective devices shall conform to the requirements of Section 512.~~

The Contractor shall maintain the work from the beginning of construction operations until final acceptance. Maintenance shall be inherent to the continuous and effective work prosecuted day by day with adequate equipment and forces to such end that the roadway and structures are sustained in a safe and satisfactory condition at all times.

When a Contract specifies placing a course on another course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade in accordance with the contract requirements during all construction operations.

~~The road shall be kept open to all traffic~~ *American Traffic Safety Services Association (ATSSA). This person must have their certification card with them* while undergoing improvements, unless otherwise permitted in the Contract. The Contractor shall keep the portion of *on* the project being used by public, pedestrian, and vehicular traffic in such condition that traffic will be safely and adequately accommodated. ~~However, removal of snow and control of ice on roads open to public travel will be performed by the Department.~~

The Contractor shall bear all costs of performing maintenance work before final acceptance and of constructing and maintaining necessary approaches, crossings, intersections, and other features without direct compensation except as provided for herein. When the Contractor confines his operation to the surface of the roadway and reasonable width of the shoulder and the surface is disturbed or damaged by his operations or equipment, ~~he~~ *site. This person* shall be responsible for the restoration and maintenance of the surface that is disturbed or damaged.

~~The Contractor shall keep the portions of the road being used by the public free from irregularities and obstructions that could present a hazard or annoyance to traffic. When directed by the Engineer, allying of dust shall be performed and paid for in accordance with the requirements of Section 511. Holes in hard surface pavements shall be filled with approved asphalt patching material.~~

- (a) **Detours:** Detours may be indicated on the plans or in the special provisions or may be used with the approval of the Engineer. Unless otherwise designated in the contract, the Contractor will furnish and erect all directional markings for through traffic on off project detours authorized or requested by the Engineer. Detours over existing state roads will be designated, marked, and maintained by the Department. If any project is located wholly or in part *oversight of work zone traffic control* within the corporate *project* limits of a municipality and through traffic is to be detoured at the request of the municipality, the municipality will provide and maintain the detours within the corporate limits and will furnish and erect all directional markings. The provision of detours and marking of alternate routes will not relieve the Contractor of the responsibility for ensuring the safety of the public or from complying with any requirements of these Specifications affecting the rights of the public within his contract limits, including those concerning lights and barricades. Maintenance of all other detours shall be the responsibility of the Contractor.

Right of way for temporary highways, diversion channels, sediment and erosion *in compliance with the Contract requirements, the VWAPM, and the MUTCD. This person's duties shall include the supervision of the installation, adjustment (if necessary), inspection, maintenance, and removal when no longer required, of all work zone traffic control features or bridges required by these provisions will be furnished by the Department* *devices on the project.*

~~(b) **Maintenance of Traffic During Suspension of Work:** During any suspension of work, the Contractor shall temporarily open to traffic such portions of the project and temporary roadways as may be agreed upon by the Contractor and Engineer.~~

~~(e) If none of the Contractor's on-site personnel responsible for the supervision of such work have the required certification with them or if they have an outdated certification card showing they are not currently certified as a Traffic Control Supervisor (TCS) either by the Department in Intermediate Work Zone Traffic Control, or by the ATSSA, the Engineer will suspend all work on the project until the Work is appropriately supervised in accordance with the requirements herein.~~

- ~~2. The Contractor shall have at least one person on site who is, at a minimum, certified in Basic Work Zone Traffic Control by the Department for each construction and/or maintenance operation that involves installing, maintaining, or removing work zone traffic control devices. This person shall be responsible for the placement, maintenance and removal of work zone traffic control devices.~~

~~In the event none of the Contractor's on-site personnel for any construction and/or maintenance operation have, at a minimum, the required certification in Basic Work Zone Traffic Control, the Engineer will suspend that construction/maintenance operation until that operation is appropriately staffed in accordance with the requirements herein.~~

- ~~3. **Flagging Traffic:** Certified flaggers shall be provided in sufficient number and locations as necessary for control and protection of vehicular and pedestrian traffic in accordance with the requirements of the ~~Virginia Work Area Protection Manual (VWAPM).~~ **VWAPM.** Flaggers shall be able to communicate to the traveling public in English while performing the job duty as a flagger at the ~~flaffer~~ **flagger** station. ~~Flagger~~ **Flaggers** shall use sign paddles to regulate traffic in accordance with the requirements of the VWAPM.~~

~~Certification for flaggers will be awarded upon a candidate's satisfactory completion of an examination. Certification cards shall be carried by flaggers while performing flagging duties. Flaggers found not to be in possession of their certification card shall be removed from the flagging site and operations requiring flagging will be suspended by the Engineer.~~ *until a certified flagger is on-site to perform flagging duties in accordance with the requirements herein.* Further, flaggers performing duties improperly will have their certifications revoked.

~~(d) **Delays:** Unless indicated in (b)~~ **Maintenance of Traffic**

- ~~1. The Contractor shall prosecute the Work so as to avoid obstructions to traffic to the greatest extent practicable. The Contractor shall provide for the safety and convenience of the general public and residents along the roadway, and for the protection of persons and property.~~

~~Highways closed to traffic shall be protected by barricades and other warning devices as required by the Contract Documents, the VWAPM, and the MUTCD. Barricades and warning devices shall be illuminated where required during periods of darkness and low visibility. The Contractor shall erect warning devices in advance of a location on the project where operations or obstructions may interfere with the use of the road by traffic and at all intermediate points where the new work crosses or coincides with an existing roadway. The Contractor shall maintain sign faces and reflective surfaces~~

of warning devices in a clean and visible condition. The Contractor shall cover or remove signs when the messages thereon are not applicable. Barricades, warning signs, lights, temporary signals, and other protective devices shall conform to the requirements of Section 512, or

2. *The road shall be kept open to all traffic while undergoing improvements, unless otherwise permitted in the Contract. The Contractor shall keep the portion of the project being used by public, pedestrian, and vehicular traffic in such condition that all such traffic will be safely and adequately accommodated. However, removal of snow and control of ice on roads open to public travel will be performed by the Department.*

The Contractor shall keep the portions of the road being used by the public free from irregularities and obstructions that could present a hazard or annoyance to traffic. When directed by the Engineer, allaying of dust shall be performed and paid for in accordance with the requirements of Section 511. Holes in hard surface pavements shall be filled with approved asphalt patching material, approved by the Engineer, two
Where such work is not specified in the Contract and determined to be required by the Engineer, and not the result of any failure or fault of the Contractor and due to causes beyond the Contractor's control, the cost to remedy such hazards will be handled according to the provisions of Section 109.05.

If any damage is sustained by an accepted unit or portion of the project attributable to causes beyond the control of the Contractor, the Engineer may authorize the Contractor to make the necessary repairs. These repairs will be paid for at the Contract price for the items requiring repair. In the absence of Contract prices covering the items of repair, the repair work will be paid for in accordance with the requirements of Section 109.05.

3. ***Detours:*** *Detours may be indicated on the plans or in the special provisions or may be used with the Engineer's approval. Unless otherwise designated in the Contract, the Contractor shall furnish, install and maintain all directional markings, for through-traffic on off-project detours authorized or requested by the Engineer with the exception of municipalities. Municipalities shall be responsible for off-project roadway maintenance within their own corporate limits. Detours over existing state roads shall be designated, marked, and maintained by the Contractor. Directional markings for detours shall include signs. Responsibility for installation and maintenance of the signs shall be in accordance with Section 512.03(a). If any project is located wholly or in part within a municipality's corporate limits and through traffic is to be detoured at the municipality's request, the municipality will provide and maintain the detours within the corporate limits and will furnish, install and maintain all directional markings. The provision of detours and marking of alternate routes will not relieve the Contractor of the responsibility for ensuring the safety of the public or from complying with any requirements of the Contract Documents affecting the rights of the public within his Contract area of operations, including those concerning lights and barricades. Maintenance of all other detours shall be the Contractor's responsibility.*

The Department will furnish the right of way for temporary highways, vehicular watercourse crossings, diversion channels, sediment and erosion control features or bridges required by the Contract Documents.

4. ***Maintenance of Traffic During Suspension of Work:*** *During any suspension of work, the Contractor shall temporarily open to traffic such portions of the project and temporary roadways as may be agreed upon by the Contractor and Engineer.*

5. **Minimizing Traffic Delays:** Two-way traffic shall be maintained at all times *unless the Contract Documents or the Engineer permits one-way traffic*. The Contractor shall not stop traffic without *the Engineer's* permission ~~of the Engineer~~.

If one-way traffic is ~~approved~~ *permitted*, the Contractor shall provide *certified* flaggers to direct the traffic. When specified in the Contract as a pay item, pilot vehicles shall be furnished in accordance with the requirements of Section 512. Upon *the Contractor's* request ~~from the Contractor~~ and where deemed appropriate by the Department, the Department will install traffic signals that may be used for the control of one-way traffic. The Contractor shall pay the costs of installation, electrical service, maintenance or repair work, and a predetermined rental charge per day for the signals and removal when no longer needed.

- ~~(e)~~ 6. **Connections and Entrances:** Connections with other roads and public and private entrances shall be kept in a reasonably smooth condition at all times.

Stabilization or surfacing material shall be applied to connections and entrances. When specified in the Contract, such material will be paid for at the ~~contract~~ *Contract* unit price for the specific material. Where such material is not specified in the Contract and determined to be required by the Engineer, the cost for stabilization or surfacing material will be handled in accordance with the provisions of Section 109.05.

The Contractor shall schedule construction operations so that approved continuous access is provided for all property adjacent to the construction when the property is shown on the plans to require access. When frontage roads are shown on the plans, they shall be constructed prior to the closing of any access routes unless other approved access is provided and is acceptable to the property owner.

~~Connections or entrances~~ *The Contractor* shall not be disturbed by the Contractor until necessary. ~~Once~~ *disturb* connections or entrances ~~have been~~ *until necessary*. ~~Once~~ disturbed, ~~they~~ *the Contractor* shall be ~~maintained~~ *maintain* and ~~completed~~ *complete* *connections or entrances* as follows:

- 1a. **Connections:** Connections that had an original paved surface shall be brought to a grade that will smoothly and safely accommodate vehicular traffic through the intersection, using temporary pavement as soon as practicable after connections are disturbed. Connections that had an original unpaved surface shall be brought to a grade that will smoothly and safely accommodate vehicular traffic through the intersection, using either the required material or a temporary aggregate stabilization course that shall be placed as soon as practicable after connections are disturbed.

If there are delays in prosecution of work for connections, connections that were originally paved shall have at least two lanes maintained with a temporary paved surface. Those that were not originally paved shall be maintained with a temporary aggregate stabilization course.

- 2b. **Entrances:** Entrances shall be graded concurrently with the roadway with which they intersect. Once an entrance has been disturbed, it shall be completed as soon as is practicable, including placing the required base and surface course or stabilization. If the entrance must be constructed in stages, such as when there is a substantial change in the elevation of the roadway with which it intersects, the surface shall be covered with a temporary aggregate stabilization course or other

suitable salvaged material until the entrance can be completed and the required base and surface or stabilization course can be placed.

- ~~(f) 7. **Grading Operations:** When the Contractor elects to complete the rough grading operations for the entire project or exceed the length of one full day's surfacing operations, the rough grade shall be machined to a uniform slope from the top edge of the existing pavement to the ditch line.~~

~~When the surface is to be widened on both sides of the existing pavement, construction operations involving grading or paving shall not be conducted simultaneously on sections directly opposite each other.~~

~~The surface of pavement shall be kept free from soil and other materials that might be hazardous to traffic. Prior to opening of new pavement to traffic, shoulders shall be roughly dressed for a distance of 3 feet from the edge of the paved surface.~~

- (g) **Obstruction Crossing Roadways:** Where the Contractor places obstructions such as suction or discharge pipes, pump hoses, steel plates or any other obstruction that must be crossed by vehicular traffic, they shall be bridged as directed by the Engineer at the Contractor's expense. Traffic shall be protected by the display of warning devices both day and night. If operations or obstructions placed by the Contractor damage an existing traveled roadway, the Contractor shall cease operations and repair damages to the roadway at no additional cost to the Department.

- ~~(h) 8. **Patching Operations:** Where existing hydraulic cement concrete pavement is to be patched, the operation of breaking and excavating old pavement shall extend for a distance of not more than two miles. Patching shall be coordinated with excavating so that an area of not more than one-half mile in which excavated patches are located shall be left at the end of any day's work. Necessary precautions shall be taken to protect traffic during patching operations.~~

- ~~(i) 9. **Temporary Structures:** The Contractor shall construct, maintain, and remove temporary structures and approaches necessary for use by traffic. Unless otherwise specified in the Contract, the cost of these operations shall be included in pay items for the new structure. After new structures have been opened to traffic, temporary structures and approaches shall be removed. The materials contained therein shall remain the property of the Contractor.~~

The proposed design of temporary structures shall be submitted to the Engineer prior to the beginning of construction in accordance with the requirements of Section 105.10.

- ~~(j) 10. **Failure To Maintain Roadway or Structures:** If the Contractor fails to remedy unsatisfactory maintenance immediately after receipt of a notice by the Engineer, the Engineer may proceed with adequate forces, equipment, and material to maintain the project. The cost of the maintenance, plus 25 percent for supervisory and administrative personnel, will be deducted from monies due the Contractor for the project.~~

- ~~(k) **Haul Route:** The Contractor shall select haul routes between the project and material source(s) that will minimize disturbance to the community. The Contractor shall furnish to the Engineer, for review, his plan for the haul route and for minimizing the adverse effects of hauling operations on persons who reside adjacent to the haul route or persons who otherwise use a portion of the haul route for ingress or egress to their residential or work area. The Department may select alternate haul routes, divide the~~

hauling traffic over several routes, and impose other restrictions deemed necessary to minimize the impact of the hauling operation on local residents.

11. Opening Sections of Projects to Traffic

~~When~~ *Certain sections of the Work may be opened to traffic when* specified in the Contract or when directed by the Engineer, ~~certain sections of the work may be opened to traffic~~. Such opening shall not constitute acceptance of the ~~work~~ *Work* or any part thereof or a waiver of any provision of the Contract.

On any section of the ~~work~~ *Work* opened by order of the Engineer where the Contract does not provide for traffic to be carried through the ~~work~~ *Work*, the Contractor will not be required to assume any expense entailed in maintaining the road for traffic. ~~Such expense will be borne by the~~ *The Department will pay such expense* or will be ~~compensated for~~ *compensate the Contractor* in accordance with the requirements of Section 109.05. Repair of slides and repair of damage attributable to traffic will be compensated for in accordance with the requirements of Section 109.05. Slides shall be removed by the Contractor in accordance with the requirements of Section 303.

On any section of the ~~work~~ *Work* opened by order of the Engineer where the Contract does not provide for traffic to be carried through the ~~work~~ *Work*, any additional cost ~~for the completion of~~ *incurred to complete* other items of work ~~that are required~~ *solely* because of the changed working conditions will be compensated ~~in accordance with~~ *according to* the requirements of Section 109.05.

If the Contractor is not continuously prosecuting the ~~work~~ *Work* to the *Engineer's* satisfaction ~~of the Engineer, he~~ *Contractor* shall not be relieved of the responsibility for maintenance *of the completed work* during the period *that* the section *of the Work* is opened to traffic prior to final acceptance. ~~Any~~ *The Contractor shall be responsible for* *any* expense resulting from the opening of such portions *of the Work* under these circumstances, except *for* slides, ~~shall be borne by the Contractor~~. The Contractor shall conduct the remainder of the construction operations so as to cause the least obstruction to traffic.

(c) Maintenance of Work

- 1. The Contractor shall maintain the Work, the project site, construction area and roadway from the beginning of construction operations until final acceptance with adequate equipment and forces to keep the roadway and structures in a safe and satisfactory condition at all times and to ensure the continuous and effective day by day prosecution of the Work. VDOT shall perform maintenance of items outside of the scope of work of the Contract shall be maintained by VDOT. As determined by the Engineering, where maintenance is necessary within the project limits but does not affect Contract work, and not the result of any failure or fault of the Contractor and due to causes beyond the Contractor's control, the cost to perform such maintenance will be handled according to the provisions of Section 109.05.*

If any damage is sustained by an accepted unit or portion of the project attributable to causes beyond the control of the Contractor, the Engineer may authorize the Contractor to make the necessary repairs. These repairs will be paid for at the Contract price for the items requiring repair. In the absence of Contract prices covering the items of repair, the repair work will be paid for in accordance with the requirements of Section 109.05.

2. *Where the Contract specifies placing a course on another course or subgrade of embankment, base, subgrade, concrete, asphalt pavement, or other courses previously constructed, the Contractor shall maintain the courses or subgrades previously constructed in accordance with the Contract requirements when placing such course. This maintenance includes, but is not limited to draining, re-compacting, re-grading, or if unacceptable or destroyed, the removal of work the Department previously accepted.*

3. Grading Operations: When the Contractor elects to complete the rough grading operations for the entire project or exceed the length of one full day's surfacing operations, the rough grade shall be machined to a uniform slope from the top edge of the existing pavement to the ditch line.

When the surface is to be widened on both sides of the existing pavement, construction operations involving grading or paving shall not be conducted simultaneously on sections directly opposite each other.

The surface of pavement shall be kept free from soil and other materials that might be hazardous to traffic. Prior to opening of new pavement to traffic, shoulders shall be roughly dressed for a distance of 3 feet from the edge of the paved surface.

(d) Maintenance Cost

The Contractor shall bear all costs of performing maintenance work before final acceptance, and of constructing and maintaining necessary approaches, crossings, intersections, and other features without direct compensation except as provided for herein. When the Contractor confines his operation to the surface of the roadway and reasonable width of the shoulder and the surface is disturbed or damaged by his operations or equipment, he shall be responsible for the restoration and maintenance of the surface that is disturbed or damaged.

- (e) Failure To Maintain Roadway or Structures: If the Contractor fails to remedy unsatisfactory maintenance immediately after receipt of a notice by the Engineer, the Engineer may proceed with adequate forces, equipment, and material to maintain the project. The cost of the maintenance, plus 25 percent for supervisory and administrative personnel, will be deducted from monies due the Contractor for the project.*

105.15—Removing and Disposing of Structures and Obstructions

The Contractor shall remove and dispose of or store, as directed by the Engineer, fences, buildings, structures, or encumbrances within the construction limits unless separate pay items for this work are included in the Contract. Payment for these operations will be in accordance with the requirements of Section 301.03. Materials so removed, including existing drains or pipe culverts, shall become the property of the Contractor, with the exception of those materials to be stored or delivered to the Department or others as designated in the Contract.

- (a) **Signs:** The Contractor shall relocate all signs within the construction limits that conflict with construction work as approved by the Engineer. Signs that are not needed for the safe and orderly control of traffic during construction as determined by the Engineer shall be removed and stored at a designated location within the project limits. The removed signs shall be stored above ground in a manner that will preclude damage and shall be reinstalled in their permanent locations prior to final acceptance. If any of the removed signs are not to

be reinstalled, the Contractor shall notify the Engineer at the time the signs have been properly stored. Such signs will be removed from the storage area by the Department. Any sign that is damaged or lost because of the fault of the Contractor shall be repaired or replaced at his expense. Costs for removing, storing, protecting, and reinstalling such signs shall be included in the price bid for other items in the Contract, and no additional compensation will be made.

- (b) **Mailboxes and Newspaper Boxes:** When removal of *existing* mailboxes and newspaper boxes is made necessary by construction operations, the Contractor shall place them in temporary locations so that access to them will not be impaired. Prior to final acceptance, boxes shall be placed in their permanent locations as designated by the Engineer and left in ~~as good~~ *the same* condition as when found. Boxes or their supports that are damaged through negligence on the part of the Contractor shall be replaced at his expense. The cost of removing and resetting ~~boxes shall be as specified in the Contract~~ *existing boxes shall be included in other pay Contract items. New mailboxes designated in the plans shall be paid for in accordance with the provisions of Section 521.*

105.16—Cleanup

Removal from the project of rubbish, scrap material, and debris caused by the Contractor's personnel or construction operations shall be a continuing process throughout the course of the ~~work~~ *Work*. The work site shall ~~have~~ *be kept in* a neat, safe and orderly ~~appearance~~ *condition* at all times.

Before final acceptance, the highway, borrow pits, quarries, disposal areas, storage areas, and all ground occupied by the Contractor in connection with the ~~work~~ *Work* shall be cleaned of rubbish, surplus materials, and temporary structures, except ~~in the case where the property is owned or controlled by the Contractor~~ *owns or controls the property*. All parts of the ~~work~~ *Work* shall be left in a neat, safe and orderly condition.

Within 30 days after final acceptance, the Contractor shall remove his equipment, materials and debris from the right of way and ~~from~~ *from* property adjacent to the project that he does not own or control.

105.17—Inspection of Work

Inspection will be performed at critical stages. However, all stages, materials, and details of the ~~work~~ *Work* are subject to inspection. The Contractor shall provide the Engineer and Inspectors ~~with~~ full and safe access to all parts of the ~~work and~~ *Work*. ~~The Contractor shall be furnished~~ *The Contractor shall furnish the Engineer and Inspectors* such information and assistance ~~by the Contractor as are required to make a complete, timely and detailed inspection~~ *inspections*. The Engineer, *Inspectors* and ~~his~~ *their* appointed representatives shall have ready access to machines, *plants* and plant equipment used in processing or placing materials.

Prior to the beginning of operations, the Engineer will meet with the Contractor to establish an understanding of the critical stages of work that shall be performed in the presence of the Inspector. In order for the Department to schedule inspection of the *critical stages of* work, the Contractor shall keep the Engineer informed of planned operations in accordance with the requirements of Section 108.03. *The Contractor shall advise the Engineer at least 24 hours in advance of any changes in the Contractor's planned operations or critical stage work requiring Department inspection.*

If the Engineer requests it, the Contractor shall remove or uncover such portions of the finished work as may be directed at any time before final acceptance. The Contractor shall restore such portions of the *finished* work to comply with the appropriate ~~contract~~ *Contract* specification requirements. If the

work exposed is acceptable, the uncovering or removing and replacing the covering or making good the parts removed will be paid for as extra work in accordance with the requirements of Section 104.03~~02~~. If the work is unacceptable, the cost of uncovering or removing and replacing the covering or making good the parts removed shall be borne by the Contractor.

When any unit of government, political subdivision, or public or private corporation is to pay a portion of the cost of ~~the~~ work specified in the Contract, its representatives shall have the right to inspect ~~the~~*such* work. The exercise of this right shall not be construed as making them a party or parties to the Contract or conferring on them the right to issue instructions or orders to the Contractor.

If materials are used or work is performed without inspection by an authorized representative of the Department, the Contractor may be ordered to remove and replace ~~the~~*such* work or material at his own expense unless the Department's representative failed to inspect the work or material after having been given reasonable notice in writing that the material was to be used or the work was to be performed.

If an inspection reveals that work has not been properly performed, *or materials used are unacceptable*, the Contractor will be so advised and he shall immediately inform the Department of his schedule for correcting such work and *materials, and* the time when a reinspection can be made.

Any inspections, examinations or testing performed pursuant to this Section are for the sole benefit of the Department and not for the benefit of the Contractor. The Contractor may not rely upon any statement, act, failure to act, or failure to properly perform inspections or other such duties on the part of the Engineer, the Inspectors, their representatives, or the Department's other inspectors and/or testing entities. A statement, act, or failure to act, or failure to properly perform inspections or other duties on the part of the Engineer, the Inspectors, their representatives, or the Department's other inspectors and/or testing entities shall not in any way excuse, or constitute or imply acceptance of unacceptable Work or improper performance of the Contract by the Contractor, or relieve the Contractor from its sole responsibility for performing the Work in accordance with the requirements of the Contract, and shall not be the basis for a claim, cause of action or right to sue the Owner.

105.18—Removal of Unacceptable and Unauthorized Work

Work that does not conform to the requirements of the Contract, *whether the result of unacceptable workmanship, use of unacceptable materials, damage through carelessness, or any other cause within the Contractor's control*, will be considered unacceptable work.

Unacceptable work shall be remedied or removed as determined by the Engineer and replaced in an acceptable manner at the Contractor's expense. The Engineer may accept the *unacceptable* work at a reduced price when acceptance is considered to be in the best interest of the public.

Work that is done contrary to the instructions of the Engineer, contrary to the requirements of the Contract, beyond the lines shown on the plans or as designated by the Engineer except as specified herein, or without authority will be considered unauthorized and will not be paid for. ~~Such work may be ordered removed or replaced~~*The Engineer may order the Contractor to remove or replace unauthorized work* at the Contractor's expense.

The Contractor shall not perform destructive sampling or testing of the work without written authorization of the Engineer. Unauthorized destructive sampling or testing will cause the work to be considered unacceptable.

In the event the Contractor is granted authorization to perform destructive sampling or testing, the Contractor shall obtain the approval of the Engineer for the method and location of each test prior to

beginning such sampling or testing. In addition, destructive sampling and testing shall be performed in the presence of the Engineer.

If the Contractor fails to comply immediately with any order of the Engineer made under the provisions of this Section, the Engineer will have the authority to cause unacceptable *or unauthorized* work to be removed and replaced and to deduct the cost *of such removal and replacement, plus 25 percent for supervisory and administrative personnel*, from any monies due or to become due the Contractor.

105.19—Submission and Disposition of Claims

(a) Notice of Intent to File a Claim

Early or prior knowledge by the Department of an existing or impending claim for damages could alter the plans, scheduling, or other ~~action of the Department~~ *action* or result in mitigation or elimination of the ~~effect of~~ *basis for the act objected to by claim. Therefore,* the Contractor. ~~Therefore,~~ *shall submit* a written statement describing the act of omission or commission by the Department or its agents that allegedly caused damage to the Contractor and the nature of the claimed damage ~~shall be submitted to the Engineer at the time of each and every occurrence that the Contractor feels gives it~~ *believes to be the right to make basis of a claim or prior to the beginning of the work upon which a claim and any subsequent action will be based. "Occurrence" includes but is not limited to the Engineer's denial of the Contractor's timely request for time extension, additional compensation, change order, adjustment or other request under the Contract, or any other decision, instruction, directive or order that the Contractor believes will result in a claim.* The written statement shall clearly inform the Department that it is a "notice of intent to file a claim." If such damage is deemed certain in the opinion of the Contractor to result from his acting on an order from the Engineer, he shall immediately take written exception to the order. Submission of a notice of intent to file a claim as specified shall be mandatory ~~and shall be signed by a person duly authorized as prescribed in Section 102.01(a).~~ Failure to submit such notice of intent shall be a conclusive waiver to such claim for damages by the Contractor. An oral notice or statement will not be sufficient nor will a notice or statement after the event. *Oral statements recorded in meeting minutes also will not be sufficient.*

In addition, at the time of each and every occurrence that the Contractor ~~feels gives it~~ *believes to be the right to make basis of a claim or prior to beginning the work upon which a claim and any subsequent action will be based,* the Contractor shall furnish the Engineer an itemized list of materials, equipment, and labor for which additional compensation will be claimed. Only actual cost for materials, labor and equipment will be considered. The Contractor shall afford the Engineer every facility for keeping an actual cost record of the work. The Contractor and the Engineer shall compare records and bring them into agreement at the end of each day. Failure on the part of the Contractor to afford the Engineer proper facilities for keeping a record of actual costs will constitute a waiver of a claim for such extra compensation except to the extent that it is substantiated by the Department's records. The filing of such notice of intent by the Contractor and the keeping of cost records by the Engineer shall in no way establish the validity of a claim.

(b) Time for Submittal of Claim

Upon completion *or termination* of the Contract, the Contractor may, within 60 days after the final estimate date established by the Department pursuant to *Code of Virginia Code, § 33.1-386*, deliver to the ~~Department a~~ *State Construction Engineer a certified* written claim, which must be a signed original claim document, along with three legible copies of the

claim document, for the amount he deems he is entitled to under the Contract. For the purpose of this Section, the final estimate date shall be that date set forth in a letter from the Department to the Contractor sent by certified mail and shall be considered as the date of notification of the Department's final estimate. Regardless of the manner of delivery of the claim, the ~~Department~~*State Construction Engineer* must receive and have physical possession of the Contractor's written claim within the 60 day period that commences with the final estimate date. Submittals received by the ~~Department~~*State Construction Engineer* either before the final estimate date or after the 60 day period shall not have standing as a claim.

(c) *Content of Claim*

The *Contractor's certified written* claim shall set forth *in detail* the facts upon which the claim is based. ~~The Contractor shall include all, including but not limited to the following:~~

1. *A detailed statement of the facts upon which the claim is based providing items of work affected and included in each claim, and the date(s) on which actions or events resulting in the claim occurred or conditions resulting in the claim became evident; and*
2. *All pertinent data, documents and correspondence that may substantiate the claim. Only actual cost for materials, labor and equipment will be considered. If the Contractor makes a claim, the The Department shall have the right, at its expense, to review and copy all of the Contractor's non-privileged project files and documents, both electronic and paper, for use in analyzing the claim.;* ~~and Within 90 days from the receipt of the claim, the Department will make an investigation and notify the Contractor by certified mail of its decision. However, by mutual agreement, the Department and Contractor may extend the 90 day period for another 30 days.~~
3. *Identification of the provisions of the Contract that the Department allegedly breached, and the acts or omissions constituting such breach.*
4. *A detailed statement of the amount of the actual cost for materials, labor and equipment sought in the claim.*
5. *A copy of the notice(s) of intent to file a claim that the Contractor submitted to the Department for the claim(s).*

(d) *Certification of Claim.*

The Contractor shall submit with the claim a written certification of the claim in the following form:

Pursuant to the Code of Virginia, I hereby certify that this contract claim submission for Virginia Department of Transportation Project No. _____ in _____ County, Virginia, is a true and accurate representation of additional costs, expenses, damages and/or delays incurred by _____ (Contractor) or its subcontractors or suppliers in the performance of the required contract work. Any statements, representations, writings, or documents, made or used and known to be false, shall be considered a violation of the Virginia Governmental Frauds Act, punishable as allowed by the Code of Virginia for a Class 6 Felony, and shall be considered a violation of the Virginia Fraud Against Taxpayers Act, subject to the civil penalties allowed by the Code of Virginia.

_____(Contractor)

By: _____
As officer or duly appointed agent of _____(Contractor)

Title: _____

Date: _____

State Of: _____

City/County of _____, To-Wit:

I, the undersigned, a Notary Public in and for the City/County and State aforesaid, do hereby certify that _____, whose name is signed to the foregoing instrument, bearing date of the _____ day of _____, 20____, has this day acknowledged the same before me in my City/County and State aforesaid.

Given under my hand this _____ day of _____, 20____.

Notary Public: _____
Notary Registration No.: _____
My commission expires: _____

Claims submitted by the Contractor for itself or its subcontractors or suppliers during the statutory period for submitting contract claims that are submitted without the Contractor's certification described above shall not have standing as a claim and shall not be considered by the Department.

(e) Non-Recoverable Items

The Department will be liable only for the actual cost for materials, labor and equipment as provided by the Contract. The Rental Rate Blue Book and any other like manuals may not be used to estimate actual costs associated with Contractor-owned equipment. The Department will not be liable for lost profits or for consequential damages including but not limited to loss of bonding capacity, loss of income, loss of business or bidding opportunities, loss of credit standing, cost of financing, interest paid, loss of other work, or insolvency. The Department will not be liable for attorneys' fees, claim consultant fees, claim preparation expenses, costs of litigation, or pre-judgment or post-judgment interest.

(f) Review of Claim

Within 90 days from the receipt of the claim, the Department will make an investigation and notify the Contractor by certified mail of its decision. However, by mutual agreement, the Department and Contractor may extend the 90-day period for another 30 days.

If the Contractor is dissatisfied with the ~~decision, he~~ *Department's decision*, *within 30 days from receipt of the decision the Contractor* shall notify the Commissioner in writing ~~within 30 days from receipt of the Department's decision that he~~ *that it* desires to appear before ~~him~~ *the Commissioner*, whether in person or through counsel, and present additional facts and arguments in support of ~~his~~ *its* claim. The Commissioner will schedule and meet with the Contractor within 30 days after receiving the request. However, the Commissioner and

Contractor, by mutual agreement, may schedule the meeting to be held after 30 days but before the 60th day from the receipt of the Contractor's written request. Within 45 days from the date of the meeting, the Commissioner will investigate the claim, including the additional facts presented, and notify the Contractor in writing of his decision. However, the Commissioner and Contractor, by mutual agreement, may extend the 45-day period for another 30 days. If the Commissioner deems that all or any portion of a claim is valid, he shall have the authority to negotiate a settlement with the Contractor subject to any approvals required by the Code of Virginia.

Any monies that become payable as the result of claim settlement after payment of the final estimate will not be subject to payment of interest unless such payment is specified as a condition of the claim settlement.

~~The Contractor shall submit a certification with any claim using the following format:~~

~~Pursuant to Code of Virginia, I hereby certify that this contract claim submission for Virginia Department of Transportation Project _____ in _____ County, Virginia is a true and accurate representation of additional costs and/or delays incurred by (name of Contractor) in the performance of the required contract work. Any statements made, and known to be false, shall be considered a violation of the Virginia Governmental Frauds Act, punishable as allowed by the Virginia Code for a Class 6 Felony.~~

~~(Company)~~

~~By:~~

~~As officer or duly appointed agent of (Company)~~

~~Title:~~

~~Date:~~

~~State Of:~~

~~City/County of _____, To Wit:~~

~~I, the undersigned, a Notary Public in and for the City/ County and State aforesaid, do hereby certify that _____, whose name is signed to the foregoing instrument, bearing date of the _____ day of _____, 20____, has this day acknowledged the same before me in my City/ County and State aforesaid.~~

~~Given under my hand this _____ day of _____, 20____.~~

~~Notary Public:~~

~~My commission expires:~~

~~Claims submitted during the statutory period for submitting contract claims and submitted without the certification described above shall not have standing as a claim and shall not be considered by the Department.~~

105.20—Department's Recovery Rights After Final Payment

After making final payment, if the Department discovers an error in any partial payment, in the final payment, or in the measurement of any quantities of work, it can recover such sums as may be sufficient to correct the error from the Contractor, his surety, or both. After final payment, if the Department discovers that the Contractor performed unacceptable or unauthorized work, used unacceptable or unauthorized materials, or the work is in any way defective due to the Contractor's fault, breach of contract, or neglect, the Department can demand that the Contractor, his surety, or both remove and replace the unacceptable, unauthorized, or defective work or materials. If the Contractor or his surety refuse to remove and replace the unacceptable, unauthorized, or defective work or materials, the Department can perform the work, or have the work performed, and the Contractor and his surety shall be liable to the Department for all costs and damages of every nature relating in any way or degree to the removal and replacement of the unacceptable, unauthorized, or defective work or materials, including reasonable attorneys fees, expert or consultant fees, and any and all litigation costs.

SECTION 106—CONTROL OF MATERIAL

106.01—Source of Supply and Quality Requirements

The materials used throughout the ~~work~~ **Work** shall conform to the requirements of the Contract. The Contractor shall regulate his supplies so that there will be a sufficient quantity of tested material on hand at all times to prevent any delay of work. Except as otherwise specified, materials, equipment, and components that are to be incorporated into the finished ~~work~~ **Work** shall be new- *and fit for their intended purpose.* Within 30 days after notification of award of the Contract, but not later than 7 days prior to the beginning of construction operations under the Contract, the Contractor shall ~~file~~ **submit** a statement of the known origin, composition and manufacture of all materials to be used in the work, including optional or alternate items. Material requirements not previously reported shall be submitted at least 60 days prior to their use on the project, but not less than two weeks prior to delivery. The Contractor's statement shall be electronically submitted by use of Form C-25 and shall be identified by the complete project number, and all items or component materials shall be identified by the specific ~~contract~~ **Contract** item number and the Specification reference shown in the Contract.

At the option of the Engineer, materials may be approved at the source of supply. If it is found during the life of the Contract that previously approved sources of supply do not supply materials or equipment conforming to the requirements of the Contract, do not furnish the valid test data required to document the quality of the material or equipment, or do not furnish documentation to validate quantities to document payment, the Contractor shall change the source of supply and furnish material or equipment from other approved sources. The Contractor shall notify the Department of this change, and provide the same identifying information noted in this Section, at least 60 days prior to their use on the project, but not less than two weeks prior to delivery.

Materials shall not contain toxic, hazardous, or regulated solid wastes or be furnished from a source containing toxic, hazardous or regulated solid wastes.

When optional materials are included in the Contract, the Contractor shall advise the Engineer in writing of the specific materials selected. Thereafter, the Contractor shall use the selected materials throughout the project unless a change is authorized in writing by the Engineer. However, when the Contractor has an option as to the type of pipe that may be used, he may use any of the approved types for each size of pipe, but he shall use the same type for a particular line. The Engineer may

authorize other types and sources in an emergency that will not unreasonably delay delivery of the selected material.

Equipment and material guaranties or warranties that are normally given by a manufacturer or supplier, or are otherwise required in the Contract, shall be obtained by the Contractor and assigned to the Commonwealth in writing. The Contractor shall also provide an in-service operation guaranty on all mechanical and electrical equipment and related components for a period of at least six months, beginning on the date of partial acceptance of that specific item(s) or final acceptance of the project.

106.02—Material Delivery

The Contractor shall advise the Engineer at least 2 weeks prior to the delivery of any material from a commercial source. Upon delivery of any such material to the project, the Contractor shall provide the Engineer with one copy of all invoices (prices are not required). The following materials shall also comply with the requirements of Section 109.01: asphalt concrete; dense graded aggregate, to include aggregate base, subbase, and select material; fine aggregate; open graded coarse aggregate; crusher run aggregate; and road stabilization aggregate. The printed weights of each load of these materials, as specified in Section 109.01, shall accompany the delivery, and such information shall be furnished to the Inspector at the project.

106.03—Local Material Sources (Pits and Quarries)

The requirements set forth herein apply exclusively to non-commercial pits and quarries from which materials are obtained for use on contracts awarded by the Department.

- (a) Local material sources shall be concealed from view from the completed roadway and any existing public roadway. Concealment shall be accomplished by selectively locating the pit or quarry and spoil pile, providing environmentally compatible screening between the pit or quarry site and the roadway, or using the site for another purpose after removal of the material, or restoration equivalent to the original use (such as farm land, pasture, turf, etc.). The foregoing requirements shall also apply to any pit or quarry opened or reopened by a subcontractor or supplier. However, the requirements will not apply to commercial sand and gravel and quarry operations actively processing material at the site prior to the date of the Notice of Advertisement.
- (b) The Contractor shall furnish the Engineer a statement signed by the property owner in which the property owner agrees to the use of his property as a source of material for the project. Upon completion of the use of the property as a material source, the Contractor shall furnish the Engineer a release signed by the property owner indicating that the property has been satisfactorily restored. ~~This requirement will be waived for~~ *The requirements for a signed statement and release will not apply to* commercial sources, sources owned by the Contractor, and sources furnished by the Department.
- (c) Local material pits and quarries that are not operated under a local or State permit shall not be opened or reopened without authorization by the Engineer. The Contractor shall submit for approval a site plan, including, but not limited to, the following:
 - ~~(1) the.~~ *The* location and approximate boundaries of the excavation;
 - ~~(2) procedures.~~ *Procedures* to minimize erosion and siltation;
 - ~~(3) provision.~~ *Provision* of environmentally compatible screening;

~~(4) restoration;~~

~~(4. Restoration;~~

~~5) cover.~~ *Cover* vegetation;

~~(6) other.~~ *Other* use of the pit or quarry after removal of material, including the spoil pile;

~~(7) the.~~ *The* drainage pattern on and away from the area of land affected, including the directional flow of water and a certification with appropriate calculations that verify all receiving channels are in compliance with Minimum Standard 19 of the Virginia Erosion and Sediment Control Regulations;

~~(8) location.~~ *Location* of haul roads and stabilized construction entrances if construction equipment will enter a paved roadway;

~~(9) constructed.~~ *Constructed* or natural waterways used for discharge;

~~(10) a.~~ *A* sequence and schedule to achieve the approved plan; and;

~~(11) the.~~ *The* total drainage area for temporary sediment traps and basins shall be shown. Sediment traps are required if the runoff from a watershed area of less than three acres flows across a disturbed area. Sediment basins are required if the runoff from a watershed area of three acres or more flows across a disturbed area. The Contractor shall certify that the sediment trap or basin design is in compliance with VDOT Standards and Specifications, and all local, state, and federal laws. Once a sediment trap or basin is constructed, the dam and all outfall areas shall be immediately stabilized.

The Contractor's design and restoration shall be in accordance with the Contract requirements and in accordance with the requirements of the federal, state, and local laws and regulations.

If the approved plan provides for the continued use or other use of the pit or quarry beyond the date of final acceptance, the Contractor shall furnish the Department a bond made payable to the Commonwealth of Virginia in an amount equal to the Engineer's estimate of the cost of performing the restoration work. If the pit or quarry is not used in accordance with the approved plan within ~~&eight~~ months after final acceptance, the Contractor shall perform restoration work as directed by the Engineer, forfeit his bond, or furnish the Engineer with evidence that he has complied with the applicable requirements of the State Mining Law.

(d) Topsoil on Department owned or furnished borrow sites shall be stripped and stockpiled as directed by the Engineer for use as needed within the construction limits of the project or in the reclamation of borrow and disposal areas.

(e) If payment is to be made for material measured in its original position, material shall not be removed until Digital Terrain Model (DTM) or cross-sections have been taken. The material shall be reserved exclusively for use on the project until completion of the project or until final DTM or cross-sections have been taken.

(f) If the Contractor fails to provide necessary controls to prevent erosion and siltation, if such efforts are not made in accordance with the approved sequence, or if the efforts are found to

be inadequate the Department will withdraw approval for the use of the site and may cause the Contractor to cease all contributing operations and direct his efforts toward corrective action or may perform the work with state forces or other means as determined by the Engineer. If the ~~work is not performed by the Contractor~~ *does not perform such work*, the cost of performing the work, plus 25 percent for supervisory and administrative personnel, will be deducted from monies due *or to become due* the Contractor.

- (g) Costs for applying seed, fertilizer, lime, ~~and mulch~~, *and for* restoration; drainages; erosion and siltation control; regrading; haul roads; and screening shall be included in the Contract price for the type of excavation or other appropriate *Contract* items.
- (h) If the Contractor fails to fulfill the provisions of the approved plan for screening or restoring material sources, the Department may withhold and use for the purpose of performing such work any monies due the Contractor at the time of the final estimate. The Contractor shall be ~~held liable for penalties, fines, or~~ *the Department's costs or* damages ~~incurred by the Department as a result of~~ *from* his failure to prevent erosion or siltation and take restorative action.
- (i) After removing *all* the material *needed from the local material sources*, the Contractor shall remove metal, lumber, and other debris resulting from his operations and shall shape and landscape the area in accordance with the approved plan for such work.
- ~~(a)~~ (j) **Sources Furnished by the Department:** Sources furnished by the Department will be made available to the Contractor together with the right to use such property as may be required for a plant site, stockpiles, and haul roads. The Contractor shall confine his excavation operations to those areas of the property specified in the Contract.

The Contractor shall be responsible for excavation that shall be performed in order to furnish the specified material.

- ~~(b)~~ (k) **Sources Furnished by the Contractor:** When the Contractor desires to use local material from sources other than those furnished by the Department, he shall first secure the approval of the Engineer. The use of material from such sources will not be permitted until test results have been approved by the Engineer and written authority for its use has been issued.

The Contractor shall acquire the necessary rights to take material from sources he locates and shall pay all related costs, including costs that may result from an increase in the length of the haul. Costs of exploring, sampling, testing, and developing such sources shall be borne by the Contractor. The Contractor shall obtain representative samples from at least two borings in parcels of 10 acres or less and at least three additional borings per increment of 5 acres or portion thereof to ensure that lateral changes in material are recorded. Drill logs for each test shall include a soil description and the moisture content at intervals where a soil change is observed or at least every 5 feet of depth for consistent material. Samples obtained from the boring shall be tested by an approved laboratory for grading, Atterberg limits, CBR, maximum density, and optimum moisture. The Department will review and evaluate the material based on test results provided by the Contractor. The Department will reject any material from a previously approved source that fails a visual examination or whose test results show that it does not conform to the Specifications or specific ~~contract~~ *Contract* requirements.

106.04—Disposal Areas

Unsuitable or surplus material shown on the plans shall be disposed of as specified herein. Material not used on the project shall be disposed of by the Contractor off the right of way. The Contractor shall obtain the necessary rights to property to be used as an approved disposal area. For the purpose of this Specification *The Contractor shall handle and dispose of the materials specified in this Section in accordance with the following requirements.*

(a) Approved Disposal Areas

For the purpose of this Section an approved disposal area is defined as that which is owned privately, not operated under a local or State permit and has been approved by the Department for use in disposing of material not used on the project. *The Contractor shall dispose of materials not used on the project off the right of way.*

~~When neither unsuitable nor surplus material~~*If an approved disposal area is shown on not designated in the plans*~~Contract Documents~~, the Contractor shall ~~dispose of it~~*obtain the necessary rights to property to be used as shown herein an approved disposal area.* If the Contractor, having shown reasonable effort, is unsuccessful in obtaining the necessary rights to property to be used as an approved disposal area, the Department will obtain rights for *a disposal area*, unless otherwise provided for in the ~~contract~~*Compensation, if*~~Contract.~~*If* not shown in the Contract, *compensation* will be in accordance with the requirements of ~~Section~~*Sections* 104.02 *and* 109.05.

Prior to the Department approving ~~a~~*the Contractor's proposed* disposal area, the Contractor shall submit a site plan. ~~The plan that~~ shall show:

- ~~(1) the.~~ *The* location and approximate boundaries of the disposal area;
- ~~(2) procedures.~~ *Procedures* to minimize erosion and siltation;
- ~~(3) provision.~~ *Provision* of environmentally compatible screening;
- ~~(4) restoration;~~
- ~~(4.)~~ *Restoration*
- ~~5) cover.~~ *Cover* vegetation;
- ~~(6) other.~~ *Other* use of the disposal site;
- ~~(7) the.~~ *The* drainage pattern on and away from the area of land affected, including the directional flow of water and a certification with appropriate calculations that verify all receiving channels are in compliance with Minimum Standard 19 of the Virginia Erosion and Sediment Control Regulations;
- ~~(8) location.~~ *Location* of haul roads and stabilized construction entrances if construction equipment will enter a paved roadway;
- ~~(9) constructed.~~ *Constructed* or natural waterways used for discharge;
- ~~(10) a.~~ *A* sequence and schedule to achieve the approved plan ~~and~~;
- ~~(11) the.~~ *The* total drainage area for temporary sediment traps and basins shall be shown. Sediment traps are required if the runoff from a watershed area of less than three acres flows across a disturbed area. Sediment basins are required if the runoff from a

watershed area of three acres or more flows across a disturbed area. --The Contractor shall certify that the sediment trap or basin design is in compliance with VDOT Standards and Specifications, all local, state, and federal laws. Once a sediment trap or basin is constructed, the dam and all outfall areas shall be immediately stabilized.

Disposal areas shall be cleared but need not be grubbed. The clearing work shall not damage grass, shrubs, or vegetation outside the limits of the approved area and haul roads thereto. After the material has been deposited, the area shall be shaped to minimize erosion and siltation of nearby streams and landscaped in accordance with the approved plan for such work or shall be used as approved by the Engineer. The Contractor's design and restoration shall conform to the requirements of the ~~contract~~ *Contract* and federal, state, and local laws and regulations.

If the Contractor fails to provide and maintain necessary controls to prevent erosion and siltation, if such efforts are not made in accordance with the approved sequence, or if the efforts are found to be inadequate, the Department will withdraw approval for the use of the site and may cause the Contractor to cease all contributing operations and direct his efforts toward corrective action, or may perform the work with state forces or other means as determined by the Engineer. ~~If the work is not performed by the Contractor, and deduct~~ the cost of performing the work, plus 25 percent for supervisory and administrative personnel, ~~will be deducted from monies~~ *due or to become* due the Contractor.

The Contractor shall furnish the Engineer a statement signed by the property owner in which the owner agrees to the use of his property for the deposit of material from the project. Upon completion of the use of the property as an approved disposal area, the Contractor shall furnish the Engineer a release signed by the property owner indicating that the property has been satisfactorily restored. This requirement will ~~be waived for~~ *not apply to* commercial sources, sources owned by the Contractor, and sources furnished by the Department.

~~Material~~ *(b)* **Materials encountered by the Contractor** shall be handled *and disposed of* as follows:

- ~~(a)~~ *1.* Unsuitable material for the purpose of this Specification is defined as material having poor bearing capacity, excessive moisture content, extreme plasticity or other characteristics as defined by the Engineer that makes it unacceptable for use in the ~~work~~ *Work* and shall be disposed of at an approved disposal area ~~or~~, landfill licensed to receive such material, *or as the Engineer directs in writing.*
- ~~(b)~~ *2.* Surplus material as shown on the plans shall be disposed of by flattening slopes, used to fill in ramp gores and medians, or if not needed, disposed of at an approved disposal area ~~or~~, a landfill licensed to receive such material, *or as the Engineer directs in writing.*

Surplus material stockpile areas on the right-of-way shall be cleared but need not be grubbed. The clearing work shall not damage grass, shrubs, or vegetation outside the limits of the approved area and the haul roads thereto. Placement of fill material shall not adversely affect existing drainage structures. If necessary, modified existing drainage structures, as approved by the Engineer, shall be paid for in accordance with Section 109.05. Within 7 days after the material has been deposited, the area shall be shaped and stabilized to minimize erosion and siltation.

- ~~(c)~~ *3.* Organic materials such as, but not limited to, tree stumps and limbs (not considered merchantable timber), roots, rootmat, leaves, grass cuttings, or other similar materials

shall be chipped or shredded and used on the project as mulch, given away, sold as firewood or mulch, burned at the Contractor's option if permitted by local ordinance, or disposed of at a facility licensed to receive such materials. Organic material shall not be buried in state rights-of-way or in an approved disposal area.

~~(d)~~ 4. Rootmat for the purpose of this Specification is defined as any material that, by volume, contains approximately 60 percent or more roots and shall be disposed of in accordance with (c) herein.

~~(e)~~ 5. Inorganic materials such as brick, cinder block, broken concrete without exposed reinforcing steel, or other such material may be used in accordance with Section 303.04 or shall be disposed of at an approved disposal area or landfill licensed to receive such materials. If disposed of in an approved disposal area, the material shall have enough cover to promote soil stabilization in accordance with the requirements of Section 303 and 303 and shall be restored in accordance with other provisions of this Section.

Concrete without exposed reinforcing steel, may be crushed and used as rock in accordance with Section 303. If approved by the Engineer, these materials may be blended with soils that meet AASHTO M57 requirements and deposited in fill areas within the right-of-way in accordance with the requirements of Section 303 as applicable.

~~(f)~~ 6. Excavated rock in excess of that used within the project site in accordance with the requirements of Section 303 shall be treated as surplus material.

~~(g)~~ 7. Other materials such as, but not limited to, antifreeze, asphalt (liquid), building forms, concrete with reinforcing steel exposed, curing compound, fuel, hazardous materials, lubricants, metal, metal pipe, oil, paint, wood or metal from building demolition, or similar materials shall not be disposed of at an approved disposal area but shall be disposed of at a landfill licensed to receive such material.

8. *Coal or other valuable materials uncovered during prosecution of the Work that are not specifically addressed by the Contract shall be disposed of as the Engineer directs in writing.*

106.05—Rights ~~for~~ **For** and Use of Materials Found on Project

With the approval of the Engineer, the Contractor may use in the project any materials found in the excavation that comply with the requirements of the Specifications. Unless otherwise specified, the Contractor will be paid for both the excavation of such materials at the ~~contract~~ **Contract** unit price and for the ~~pay~~ **Contract** item for which the excavated material is used. However, the Contractor shall replace at his own expense with other acceptable material the excavation material removed and used that is needed for use in embankments, backfills, approaches, or otherwise. The Contractor shall not excavate or remove any material from within the construction limits that is not within the grading limits, indicated by the typical section, slope and grade lines shown in the plans without written authorization by the Engineer. *The Contractor shall not own and shall not have the right to sell, trade or exchange, any coal or other valuable materials found on the project without the Engineer's specific written authorization.*

106.06—Samples, Tests, and Cited Specifications

Materials will be inspected and tested by the Engineer before or during their incorporation in the ~~work~~ *Work*. However, the inspection and testing of such material shall not relieve the Contractor of the responsibility for furnishing material that conforms to the requirements of the Specifications. The Department may retest all materials that have been accepted at the source of supply after delivery and will reject those that do not conform to the requirements of the Specifications. Stored material may be re-inspected prior to use. Work in which untested materials are used without the written permission of the Engineer may be considered unacceptable.

Unless reference is made to a specific dated Specification, references in these Specifications to AASHTO, ASTM, VTM, and other standard test methods and materials requirements shall refer to either the test specifications that have been formally adopted or the latest interim or tentative specifications that have been published by the appropriate committee of such organizations as of the date of the Notice of Advertisement. Unless otherwise indicated, tests for compliance with specification requirements will be made by and at the Department's expense except that the cost of retests, exclusive of the first retest, shall be borne by the Contractor. Samples shall be furnished by the Contractor at his expense, and those that are not tested by the Contractor will be tested by a representative of the Department.

The inspection cost of structural steel items fabricated in a country other than the continental United States shall be borne by the Contractor. Inspection of structural fabrication shall be performed in accordance with the requirements of the appropriate VTM by a commercial laboratory approved by the Department. Additional cleaning or repair necessary because of environmental conditions in transit shall be at the Contractor's expense.

In lieu of testing, the Engineer may approve the use of materials based on the receipt of ~~the~~ *the manufacturer's* certification furnished by the Contractor ~~from the manufacturer~~. However, furnishing the certificate shall not relieve the Contractor of the responsibility for furnishing materials that conform to the requirements of the Specifications or the ~~contract~~ *Contract* requirements.

Materials requiring an MSDS will not be accepted at the project site for sampling or at the Department's laboratories for testing without the document.

106.07—Plant Inspection

If the Engineer inspects materials at the source, the following conditions shall be met:

- (a) The Engineer shall have the cooperation and assistance of the Contractor and producer of the materials.
- (b) The Engineer shall have full access to parts of the plant that concern the manufacture or production of the materials being furnished.
- (c) For materials accepted under a quality assurance plan, the Contractor or producer shall furnish equipment and maintain a plant laboratory at locations approved for plant processing of materials. The Contractor or producer shall use the laboratory and equipment to perform quality control testing.

The laboratory shall be of weatherproof construction, tightly floored and roofed, and shall have adequate lighting, heating, running water, ventilation, and electrical service. The ambient temperature shall be maintained between 68 degrees F and 86 degrees F and thermostatically controlled. The laboratory shall be equipped with a telephone, intercom,

or other electronic communication system connecting the laboratory and scale house if the facilities are not in close proximity to each other. The laboratory shall be constructed in accordance with the requirements of local building codes.

The Contractor or producer shall furnish, install, maintain, and replace, as conditions necessitate, testing equipment specified by the appropriate ASTM, AASHTO method or VTM being used and provide necessary office equipment and supplies to facilitate keeping records and generating test reports. The Contractor or producer's technician shall maintain current copies of test procedures performed in the laboratory. The Contractor shall calibrate or verify all balances, scales and weights associated with testing performed as specified in AASHTO R18. The Contractor or producer shall also provide and maintain an approved test stand for accessing truck beds for the purpose of sampling and inspection. The Department may approve a single laboratory to service more than one plant belonging to the same Contractor or producer.

For crushed glass, the plant equipment requirements are waived in lieu of an independent third-party evaluation and certification of crushed glass properties by an AASHTO Materials Reference Laboratory (AMRL)-accredited commercial soil testing laboratory demonstrating that the supplied material conforms to the specified requirements of Section 203. Random triplicate samples will be evaluated and analyzed for every 1,000 tons of material supplied to the project. The averaged results will be used for evaluation purposes. Suppliers of crushed glass shall maintain third party certification records for a period of three years.

106.08—Storing Materials

Materials shall be stored in a manner so as to ensure the preservation of their quality and fitness for the ~~work~~ *Work*. When considered necessary by the Engineer, materials shall be stored in weatherproof buildings on wooden platforms or other hard, clean surfaces that will keep the material off the ground. Materials shall be covered when directed by the Engineer. Stored material shall be located so as to facilitate their prompt inspection. Approved portions of the right of way may be used for storage of material and equipment and for plant operations. However, equipment and materials shall not be stored within the clear zone of the travel lanes open to traffic.

~~Additional~~ *The Contractor shall provide additional* required storage space ~~shall be provided by the Contractor~~ at his expense. Private property shall not be used for storage purposes without the written permission of the owner or lessee. The Contractor shall furnish copies of the owner's written permission to the Engineer. Upon completion of the use of the property, the Contractor shall furnish the Engineer a release signed by the property owner indicating that the property has been satisfactorily restored.

Chemicals, fuels, lubricants, bitumens, paints, raw sewage, and other harmful materials as determined by the Engineer shall not be stored within any floodplain unless no other location is available and only then shall the material be stored in a secondary containment structure(s) with an impervious liner. Also, any storage of these materials in proximity to natural or man-made drainage conveyances or otherwise where the materials could potentially reach a waterway if released under adverse weather conditions, must be stored in a bermed or diked area or inside a container capable of preventing a release. Double-walled storage tanks shall meet the berm/dike containment requirement except for storage within flood plains. Any spills, leaks or releases of such materials shall be addressed in accordance with Section 107.16(b). Accumulated rain water may also be pumped out of the impoundment area into approved dewatering devices.

106.09—Handling Materials

Materials shall be handled in a manner that will preserve their quality, integrity and fitness for the ~~work~~*Work*. Aggregates shall be transported in vehicles constructed to prevent loss or segregation of materials.

106.10—Unacceptable Materials

Materials that do not conform to the requirements of the ~~Specifications~~*Contract Documents* shall be considered unacceptable. Such materials, whether in place or not, will be rejected, and shall be removed from the site of the work *and replaced at no cost to the Department*. If it is not practical for the Contractor to remove rejected material immediately, the Engineer will mark the *rejected* material for identification. Rejected material whose defects have been corrected shall not be used until ~~approval has been given by the Engineer~~*the Engineer gives written approval for its use. Upon the Contractor's failure to comply promptly with any order of the Engineer made under this Section, the Engineer may, in addition to other rights and remedies, have the unacceptable material removed and replaced, and deduct the cost of such removal and replacement, plus 25 percent for supervisory and administrative personnel, from monies due or to become due the Contractor.*

106.11—Material Furnished by the Department

The Contractor shall furnish all materials required to complete the ~~work~~*Work* except those specified to be furnished by the Department.

Material furnished by the Department will be delivered or made available to the Contractor at the points specified in the Contract. The cost of handling and placing materials after delivery to the Contractor shall be included in the ~~contract~~*Contract* price for the *Contract* item with which they are used.

After receipt of the materials, the Contractor shall be responsible for material delivered to him, including shortages, deficiencies, and damages that occur after delivery, and any demurrage charges.

106.12—Critical Materials

Raw, *or* manufactured materials or supplies that are necessary for the fabrication, construction, installation or completion of any item of work that is, or becomes, in extremely short supply regionally or nationally as substantiated by recognized public reports such as news media, trade association journals, ~~etc.~~*or government reports*, due to catastrophic events of nature, needs of national defense or industrial conditions beyond the control of the Department or Contractor, will be declared ~~Critical~~*critical materials* by the Department.

When the supply of materials becomes critical, the provisions of this Section will become applicable to the Contract.

When all items of work involving noncritical materials have been completed by the Contractor or have progressed to a point where no further work is practicable prior to receipt of critical materials, a complete suspension of work will be granted by the Department. Requests for partial suspension orders because of delays attributable to nonreceipt of critical materials will be considered on the basis of merit in each case.

The Department reserves the right to substitute *critical* materials *or methods* by means of a ~~work~~*change* order.

Contractors, via their manufacturers or suppliers, that request relief due to critical shortage of materials as specified in this Section shall immediately supply information ~~concerning the product~~ and other supporting data to permit the Department an opportunity to ~~access~~*assess* possible alternatives or methods to avoid undue delay or expenditure.

SECTION 107— LEGAL RESPONSIBILITIES

107.01—Laws To Be Observed

The Contractor shall keep fully informed of federal, state, and local laws, bylaws, ordinances, orders, decrees, and regulations of governing bodies, courts, and agencies having any jurisdiction or authority that affects those engaged or employed on the ~~work~~*Work*, the conduct of the ~~work~~*Work*, or the execution of any documents in connection with the ~~work~~*Work*. The Contractor shall observe and comply with such laws, ordinances, regulations, orders, or decrees and shall *defend*, indemnify and hold harmless the Commonwealth and its agents, officers, or employees *from and* against any claim for liability, *fine, penalty or cost, including attorney's fees*, arising from or based on their violation, whether by himself, his agents, ~~his~~ employees, or subcontractors. The Contractor shall execute and file the documents, statements, *certifications*, and affidavits required under any applicable federal or state law or regulation required by or affecting his bid, or *the* Contract, or prosecution of the ~~work there under~~*Work thereunder*. The Contractor shall permit examination of any records made subject to such examination by any federal or state law or by regulations promulgated ~~there under~~*thereunder* by any state or federal agency charged with enforcement of such law.

~~In accordance with the Code of Virginia (Virginia Public Procurement Act), the Contractor shall make payment to all subcontractors, as defined in the Code, within seven days after receipt of payment from the Department; or shall notify the Department and subcontractor in writing of his intention to withhold all or a part of the amount due along with the reason for nonpayment.~~

~~In the event payment is not made as noted, the Contractor shall pay interest at the rate of 1 percent per month, unless otherwise provided in the Contract, to the subcontractor on all amounts that remain unpaid after seven days except for the amounts withheld as provided in this Section.~~

~~These same requirements shall be included in each subcontract and shall be applicable to each lower-tier subcontractor.~~

107.02—Permits, Certificates, and Licenses

(a) General

The Contractor shall conform to the permit conditions as shown in the ~~contract documents~~*Contract Documents*. Construction methods shall ~~confirm~~*conform* to the stipulations of the permit ~~and/or~~ certification conditions, *or both*. The Contractor shall assume all obligations and costs incurred as a result of complying with the terms and conditions of the permits and certificates.

If any of the permits ~~shown herein~~*listed below* are applicable to the project, the ~~contract documents~~*Contract Documents* will indicate such and the applicable permit *stipulations*

or conditions will be included in *considered a part of the contract documents* *Contract Documents*.

- (a)1. **Department of the Army, Corps of Engineers Nationwide Permits:** A nationwide permit is issued to the Department by the U.S. Army Corps of Engineers to place fill or dredge material in waters of the United States including wetlands.
- (b)2. **The State Program General Permit for Linear Transportation Projects (SPGP- 01 2A & B):** The SPGP-01 2A & B is a permit issued to the Department by the U.S. Army Corps of Engineers to proceed with linear transportation projects involving work, structures and filling both temporary and permanent, in waters of the United States including wetlands.
- (c)3. **Letter of Permission (LOP-1):** The LOP-1 is a regional permit issued to the Department by the U.S. Army Corps of Engineers to proceed with roadway projects involving work, structures and filling both temporary and permanent, in waters of the United States including wetlands.
- (d)4. **Virginia Marine Resources Commission – Virginia General Permit (VGP-1):** A VGP-1 permit is issued to the Department by the Virginia Marine Resources Commission and is required on projects that cross in, on or over state-owned land which is submerged below low water (channelward of the mean low water line), in tidal areas including tidal wetlands, or below ordinary high water anywhere in the Commonwealth of Virginia.
- (e)5. **Virginia Water Protection Permit (VWPP):** The VWPP is issued to the Department by the Virginia Department of Environmental Quality, Water Division and is required for activities that result in a discharge to surface waters and wetlands. The VWPP is issued as an individual or general permit.
- (f)6. **Virginia Department of Conservation and Recreation – Virginia Stormwater Management Program General Permit for Discharge of Stormwater Management Permit from Construction Activities (VSMP):** ~~The VSMP permit is issued by the Virginia Department of Conservation and Recreation and is required for all~~ *Construction Permit): All construction activities in accordance with undertaken by or for VDOT must be covered by the VSMP Construction Permit. According to IIM-LD-242 and Section 107.16. The general VSMP permit covers the discharges from the, VDOT is responsible for securing VSMP Construction Permit coverage for all applicable land disturbing activities performed on VDOT rights of way or easements, including off-site during support facilities on VDOT rights of way or easements that directly relate to the construction site. The Department will* *Contractor shall* be responsible for acquiring the *securing* VSMP permit from the *Virginia Department of Conservation and Recreation for the project* *Construction Permit coverage for off-site support facilities that are not located on VDOT rights of way or easements.*
- (g)7. **Coastal Zone Management (CZM) Consistency Concurrence:** This clearance is issued to the Department by the Virginia Department of Environmental Quality for projects in navigable waters requiring a U.S. Coast Guard bridge permit.
- (h)8. **Tennessee Valley Authority (TVA) Permit:** The TVA Section 26a permit is issued to the Department by the Tennessee Valley Authority and is required for construction activities in or along the Tennessee River or its tributaries.

- ⊕9. **U.S. Coast Guard Bridge Permit:** This permit is required for bridge projects over navigable waters. The Department is responsible for acquiring these permits.
- ⊕10. **Other Permits, Certificates and Licenses:** Except as otherwise specified herein, the Contractor shall procure all necessary permits, certificates or licenses that have not been obtained by the Department. The Contractor shall pay all charges, fees, and taxes and shall comply with all conditions of the permits, certificates or licenses.

~~Construction or excavation material~~ (b) ~~The Contractor shall not be stored~~ *stockpile materials (including fill, construction debris, and excavated and woody materials)* within the waterway or wetlands. ~~Cofferdams~~ *The Contractor shall construct cofferdams,* stream channel retaining structures and all necessary dikes ~~shall be constructed of~~ *using* non-erodible materials or if specified in the permit(s), faced with coarse non-erodible materials. If faced with non-erodible material, filter cloth shall be placed between the granular fill and riprap in accordance with Section 245, 204, 303.03 and 414. Temporary structures shall be removed from the waterway with minimal disturbance of the streambed. Discharge of dredge or fill material shall be placed in accordance with the best management practice, project permits and all applicable laws and regulations. Dredged or fill material shall be removed to an approved, contained, upland location in accordance with Section 106.04. The disposal area will be of sufficient size and capacity to properly contain the dredge material, to allow for adequate dewatering and settling of sediment, and to prevent overtopping. The disposal area shall be stabilized prior to placement of dredge material.

- (c) The ~~Contractor~~ *Contractor's* activities shall not substantially disrupt the movement of those species of aquatic life indigenous to the water body including those species that normally migrate through the area. The Contractor, to the maximum extent practicable, shall not permanently restrict or impede the passage of normal or expected high flows or cause the relocation of the water. The Contractor shall avoid and minimize all temporary disturbances to surface waters during construction. The Contractor shall remove any temporary fill in its entirety and the affected areas returned to their preexisting elevation conditions within 30 days of completing work, which shall include re-establishing pre-construction contours, and planting or seeding with appropriate wetland vegetation according to cover type (emergent, scrub/shrub, or forested). The Contractor shall perform all work activities during low-flow conditions and shall isolate the construction area via the implementation of nonerodible cofferdams, ~~sheetpiling~~ *sheet piling*, stream diversions or similar structures.
- (d) The Contractor shall accomplish all construction, construction access (e.g., cofferdams, ~~sheetpiling~~ *sheet piling*, and causeways) and demolition activities associated with this project in a manner that minimizes construction or waste materials from entering surface waters. Access roads and associated bridges or culverts shall be constructed to minimize the adverse effects on surface waters. Access roads constructed above preconstruction contours and elevations in surface waters must be bridged or culverted to maintain surface flows. All utility line work in surface waters shall be performed in a manner that minimizes disturbance, and the area shall be returned to its original contours and restored within 30 days of completing work in the area.
- (e) The Contractor shall prepare and implement an ~~erosion~~ *Erosion* and ~~sediment control plan~~ *Sediment Control Plan* in compliance with the Erosion and Sediment Control Law, the Erosion and Sediment Control Regulations, and the annual erosion and sediment control standards and specifications approved by the Department of Conservation and

Recreation. The Contractor shall stockpile excavated material in a manner that prevents reentry into the stream, restores original streambed and streambank contours, revegetates barren areas, and implements strict erosion and sediment control measures throughout the project period as described in the Virginia Department of Transportation Annual Program approved by the Virginia Department of Conservation and Recreation.

- (f) The Contractor shall comply with the Stormwater Management Act, the Stormwater Management Regulations, and the annual storm water management standards and specifications approved by the Department of Conservation and Recreation. The Contractor shall provide fill material that is clean and free of contaminants in toxic concentrations or amounts in accordance with all applicable laws and regulations. The Contractor shall comply with all applicable FEMA-approved state or local floodplain management requirements.
- (g) The Contractor shall adhere to any time-of-year restriction conditions as required by state and federal permitting agencies. No in-stream work shall be permitted during in-stream time-of-year restriction.
- (h) The Contractor shall prohibit wet or uncured concrete *or concrete waste from demolition* from entry into flowing surface waters. The Contractor shall not dispose of excess or waste concrete in surface waters and prevent wash water from discharging into surface waters. The Contractor shall employ measures to prevent spills of fuels or lubricants into state waters.
- (i) The Contractor shall not violate the water quality standards ~~as a result of the~~ *when performing* construction activities. The Contractor shall not alter the physical, chemical, or biological properties of surface waters and wetlands or make them detrimental to the public health, to animal or aquatic life, to the uses of such waters for domestic or industrial consumption, for recreation, or for other uses.
- (j) The Contractor shall not proceed with work covered by a permit until the work is released in writing by the Engineer.

(k) If the Department has not released work covered by a ~~U.S. Army Corps of Engineers~~ permit and the Contractor *believes that he* has completed all other work ~~within the limits of the project, the Contractor shall so advise the Engineer in writing. Upon receipt of the notification, the Engineer will evaluate the status of the project and advise the Contractor within 45 days of the portion of the project that is acceptable under~~ *according to the Contract, he may request Partial Acceptance of such work according to* Section 108.09. *Excluding that portion of the work encumbered by the permit.* , If the Engineer determines that all of the *completed* work ~~except that encumbered by the permit application is acceptable under, the Engineer will notify the requirements of Contractor in writing according to~~ Section 108.09, ~~the Contractor will be notified accordingly. The Department or the Contractor may then elect to~~ *may either* continue or terminate the remaining portion of the Contract-

~~The party electing to terminate the Contract shall so advise the other party in writing after the 45-day period. The terms of contract termination will be in accordance with the requirements of~~ *according to* Section 108.08 ~~No compensation will be made for delays encountered or for work not performed except for an extension of time as determined in accordance with the requirements of Section 108.04.~~

~~The~~ (l) *If the Contractor shall submit a request to the Engineer in writing if he wants* *wishes* to deviate from ~~the permit conditions or stipulations, or from approved plans or change his,~~ *the Contractor shall submit a written request to the Engineer describing the proposed method(s) regarding any deviations. The Engineer will determine if circumstances on*

*which the original permit conditions, stipulations or approved plans were based have materially and substantially changed, and the proposed work located in waterways or wetlands. Such work may require additional environmental permits. If the Engineer determines that the activities **deviations** are necessary for completion of the work. **If such work requires additional permits or permit modifications, or both**, the Contractor shall furnish the Engineer all necessary information pertaining to the activity. The Contractor shall be responsible for designing and supplying all sketches and notes necessary to acquire any permit modification required for changes in the proposed construction methods. Such information shall be furnished at least 180 days prior to the date the proposed changed activity is to begin. The District Environmental Manager will apply for the necessary permits modifications to the permits obtained by the Department. The Contractor shall not ~~begin the activity~~ **proceed with work covered by a permit modification** until ~~directed to do so by the Engineer. Additional~~ **releases the work in writing. The Engineer will not consider requests for additional** compensation ~~will not be made for delay due to alleged delays to the work~~ **Work or change** ~~changes in the Contractor's proposed methods that result from jurisdiction agency review~~ **actions** or ~~disapproval of Contractor's proposed methods.~~ **requirements.***

- (m) If additional permits are required to perform dredging for flotation of construction equipment or for other permanent or temporary work **on Department rights-of-way or easements** as indicated in the Contractor's accepted plan of operation, ~~but have not been obtained by the Department,~~ the Contractor shall furnish the Engineer, at least 75 days prior to **the planned start date of** the proposed activity, all necessary information pertaining to the proposed activity in order for the Department to apply for the **additional** permits. The Contractor shall not begin the proposed activity until the additional permits have been secured and the Engineer ~~has advised~~ **notifies** the Contractor ~~that the proposed activity may proceed~~ **in writing.**
- (n) The Contractor shall permit representatives of state and federal environmental regulatory agencies to make inspections at any time in order to insure that the activity being performed under authority of the permit(s) is in accordance with the terms and conditions prescribed herein.

107.03—Federal-Aid Provisions

When the U.S. government pays all or any portion of the cost of a project, the Contractor shall comply with the federal laws and rules and regulations made pursuant to such laws. **applicable to the project.** The ~~work~~ **Work** shall be subject to inspection by the appropriate federal agency. Such inspection shall in no sense make the federal government a party of the Contract and will in no way interfere with the rights of either party to the Contract. **For Federally-aided projects, the provisions contained in Form FHWA-1273 and other federal provisions incorporated into the Contract must be made a part of, and physically incorporated into all subcontracts so as to be binding in those agreements.**

107.04—Furnishing Right of Way

The Department will secure necessary rights-of-way and easements in advance of construction. ~~The~~ **Delays in the acquisition of rights of way or easements are beyond the control of the Department and the** Department will not be responsible for any **such** delay ~~in the acquisition of a right of way~~ other than consideration of an extension of time. The Department will provide notification of known delays in the ~~proposal for work~~ **Proposal** to assist bidders in planning the ~~work~~ **Work** and composing their bids. Easements for temporary uses and detours requested by the

Contractor and approved by the Department in lieu of a detour within the right of way or easement area shall be acquired by the Contractor without the Department being a party to the agreement.

107.05—Patented Devices, Materials, and Processes

If the Contractor employs any design, device, material, or process covered by a patent or copyright outside the requirements of the Contract he shall provide for its use by obtaining a legal agreement with the patentee or owner. The Contractor and the surety shall *defend*, indemnify and save harmless the Commonwealth, any affected third party, or political subdivision from ~~claims~~ *and against any and all claims, lawsuits, or legal actions* for infringement because of such use. The Contractor shall indemnify the Commonwealth for costs, expenses, or damages, *including attorneys' fees*, resulting from infringement during prosecution or after completion of the ~~work~~ *Work*.

107.06—Personal Liability of Public Officials

In carrying out any of the provisions of these Specifications or in exercising any power or authority granted to them by or within the scope of the Contract, there shall be no liability upon the Board, Commissioner, Engineer, or their authorized representatives, either personally or as officials of the Commonwealth. In all such matters, they act solely as agents and representatives of the Commonwealth.

107.07—No Waiver of Legal Rights

The ~~Commonwealth~~ *Department* shall not be precluded or estopped by any measurement, estimate, *approval, acceptance*, or certificate made either before or after final acceptance of the ~~work and~~ *Work*, or payment therefor, from showing (1) the true amount and character of the work performed and materials furnished by the Contractor, (2) that any such measurement, estimate, or *acceptance*, certificate *or payment* is untrue or incorrectly made, or (3) that the work or materials do not comply with the ~~provisions~~ *requirements* of the Contract. The ~~Commonwealth~~ *Department* shall not be precluded or estopped, notwithstanding any such measurement, estimate, or *approval, acceptance*, certificate, ~~and~~ *or* payment in accordance therewith, from recovering from the Contractor or his surety, or both, such ~~cost or~~ damage as ~~it~~ *the Department* may sustain by reason of ~~his~~ *the Contractor's* failure to comply with the ~~terms~~ *requirements* of the Contract. ~~Neither the acceptance by the Department or any representative of the Department nor any payment for or~~ *The Department's acceptance of the whole or any part of the work, nor Work, or the Department's payment for the whole or any part of the Work, or the Department's granting of any extension of time, nor or the Department's taking any possession taken by of any part of the Department Work, shall not operate as a waiver of any portion of the Contract or of any right or power herein reserved, or of any right to costs or damages. A The Department's express written waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.*

107.08—Protecting and Restoring Property and Landscape

The Contractor shall preserve property and improvements along the boundary lines of and adjacent to the ~~work~~ *Work* unless their removal or destruction is specified in the Contract Documents. The Contractor shall use suitable precautions to prevent damage to such property.

When the Contractor finds it necessary to enter on private property, beyond the limits of the construction easement shown on the plans, he shall secure from the owner or lessee a written permit

for such entry prior to moving thereon. An executed copy of this permit shall be furnished to the Engineer.

The Contractor shall be responsible for any damage or injury to property during the prosecution of the work resulting from any act, omission, neglect, or misconduct in the Contractor's method of executing the work or attributable to defective work or materials. This responsibility shall not be released until final acceptance of the project and a written release from the owner or lessee of the property is obtained.

When direct or indirect damage is done to property by or on account of any act, omission, neglect, or misconduct in the Contractor's method of executing the ~~work~~Work or in consequence of the nonexecution thereof on the part of the Contractor, the Contractor shall restore such property to a condition similar or equal to that existing before such damage was done by repairing, rebuilding, or restoring, as may be directed by the Engineer, or ~~making~~shall make a settlement with the property owner ~~for such property damage~~. The Contractor shall secure from the owner a ~~written~~ release from any claim against the Department without additional compensation therefor. A copy of this release shall be furnished the Engineer.

107.09—Contractor's Responsibility for Utility Property and Services

At points where the Contractor's operations are on or adjacent to the properties of any utility, including railroads, and damage to which might result in expense, loss, or inconvenience, work shall not commence until arrangements necessary for the protection thereof have been completed.

The Contractor shall cooperate with owners of utilities so that removal and adjustment operations may progress in a timely, responsible, and reasonable manner, duplication of adjustment work may be reduced to a minimum, and services rendered by those parties will not be unnecessarily interrupted.

If any utility service is interrupted as a result of accidental breakage or of being exposed or unsupported, the Contractor shall promptly notify the proper authority and shall cooperate fully with the authority in the restoration of service. If utility service is interrupted, repair work shall be continuous until service is restored. No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority. When the Contractor's work operations require the disconnection of "in service" fire hydrants, the Contractor shall notify the locality's fire department or communication center at least 24 hours prior to disconnection. In addition, the Contractor shall notify the locality's fire department or communications center no later than 24 hours after reconnection of such hydrants. The Contractor shall be responsible for any damage to utilities that, in the investigation and determination of the Engineer, is found to be attributable to the Contractor's neglect, means -or methods of performing the work.

Nothing in this Section shall be construed to be in conflict with the provisions of Section 107.08.

The Contractor shall comply with all requirements of the Virginia Underground Utility Damage Prevention Act (the Miss Utility law). The Contractor shall ~~wait a minimum of 48 hours after~~*not make or begin any excavation or demolition without first* notifying the Miss Utility notification center ~~before commencing excavation work~~*for the area where the project is located. The Contractor shall wait to begin its excavation or demolition until 7:00 a.m. on the third working day following the Contractor's notice to the notification center, unless the underground utilities cannot be marked within that time due to extraordinary circumstances.* The Contractor may commence excavation ~~or demolition work after 48 hours~~ only if confirmed through the Ticket Information Exchange (TIE) System, *or the Contractor is notified directly*, that all applicable utilities have either marked their underground line locations or reported that no lines are present in the work vicinity. ~~The Contractor~~

~~shall wait an additional 24 hours before commencing excavation operations if any utility operators have failed to respond to the TIE within the first 48 hours.~~

107.10—Restoration of Work Performed by Others

The Department may construct or reconstruct any utility service within the construction limits or grant a permit for the same at any time. The Contractor shall not be entitled to any damages occasioned thereby other than a consideration of an extension of time, unless the Contractor's Work is damaged, altered or impeded by the condition.

When authorized by the Engineer, the Contractor shall allow any person, firm, or corporation to make an opening in the highway within the limits of the project upon presentation of a duly executed permit from the Department or any municipality for sections within its corporate limits. When directed by the Engineer, the Contractor shall satisfactorily repair portions of the work disturbed by the openings. The work for such repairs as authorized and directed by the Engineer will be paid for in accordance with the requirements of Section 109.05 and shall be subject to the same conditions as the original work performed.

107.11—Use of Explosives

Explosives shall be stored and used in a *safe and* secure manner in compliance with federal, state, and local laws and ordinances. Prior to prosecuting the ~~work~~*Work*, the Contractor shall conduct an on-site review of the work involved and develop a plan of operations for performing excavation work. Where feasible, the Contractor shall explore other means of loosening and or reducing the size of the excavation without blasting. When blasting becomes necessary, the Contractor's plan of operations shall include a blasting plan detailing the blasting techniques to be used during excavation operations requiring the use of explosives. Both plans shall be submitted to the Engineer for review prior to commencing blasting operations.

The Contractor shall be responsible for damage resulting from the use of explosives. The Contractor shall notify each property and utility owner having a building, structure, or other installation above or below ground in proximity to the site of the ~~work~~*Work* of his intention to use explosives. Notice shall be given sufficiently in advance of the start of blasting operations to enable the owners to take steps to protect their property. The review of the Contractor's plan of operations, blasting plan and the notification of property owners shall in no way relieve the Contractor of his responsibility for damage resulting from his blasting operations.

107.12—Responsibility for Damage Claims

- (a) The Contractor shall *defend*, indemnify and save harmless the Commonwealth, the Board, and ~~its~~*their respective* officers, agents, and employees, and the city, town, county, or other municipality in which the ~~work~~*Work* is performed and their *respective* officers, agents, and employees, from *and against any* suits, actions, or claims *for costs, expenses or damages, including attorneys' fees*, brought for or on account of any injuries or damages received or sustained by any ~~person, persons,~~ or property resulting from or arising out of the ~~work~~*following*:

1. *the Work* performed by the Contractor, ~~or~~;
2. by or in consequence of any neglect in safeguarding the ~~work~~, *Work by the Contractor*;

3. through the use of unacceptable materials in the construction or the improvement; or
4. resulting from any act ~~or~~, omission, neglect, or misconduct of the Contractor; ~~or by or on account of any claims or amounts recovered by infringement of any patent, trademark, or copyright.~~

The Commissioner may retain as much of the monies *due or to become* due the Contractor under and by virtue of his Contract as the Commonwealth considers necessary to ensure that a fund will be available to pay a settlement or judgment of such suits, actions, or claims. If no monies are due, the Contractor's surety *and insurers* will be held accountable until all such *suits*, claims and actions have been settled and suitable evidence to that effect has been furnished the Board. Any extension of time granted the Contractor, in which to complete the Contract shall not relieve him or his surety of this responsibility.

- (b) It is not intended by any of the provisions of any part of the Contract to establish the public or any member thereof as a third party beneficiary ~~hereunder of the Contract~~, or to authorize anyone not a party to the Contract to enter into a suit for personal injuries or property damage pursuant to the terms or provisions of the Contract.
- (c) The Contractor shall comply with all requirements, conditions, and terms of the Contract, including but not limited to, environmental permits, commitments identified in the Contract, and applicable environmental laws and regulations. The Contractor shall not cause damage, except as allowed under the terms of the Contract, or as allowed under applicable permits or laws, to the air, water, *soil*, or other natural resources, or cause damage to adjacent or off-site property.

When any act, omission, or *work performed or neglected by* other action of the Contractor occurs, that violates the requirements, conditions or terms of the Contract, and affects the health, safety, or welfare of the public or natural resources, the Engineer will direct the Contractor to take prompt action to repair, replace, or restore the damage or injury within a time frame established by the Engineer, and to comply with the requirements of Section 107.01. If the Contractor fails to make such repair, replacement, or restoration within the established time frame, the Engineer will have the damage or injury repaired, replaced, or restored and will deduct the cost of such repair, replacement, or restoration from monies due *or to become due* the Contractor.

- (d) If the Department determines by its own investigation that injury or damage has occurred as a result of *an act, omission, or* work performed or neglected by the Contractor, the Department may suspend the Contractor from future bidding for a period of time commensurate with the severity of the injury or damage as determined by the ~~Chief~~ Engineer. Injury is defined as harm or impairment to persons, *property* or natural resources. Damage is defined as the loss or harm resulting from *an injury to person or property*. In addition, the Department may recover either (i) the loss or damage that the Department suffers as a result of such act, omission or other action or (ii) any liquidated damages established in such contract; plus (iii) reasonable attorney's fees, expert witness fees, staff salaries, incidental and equipment charges associated with any investigation.

~~Upon a finding against the Contractor by the Department~~ *Upon the Department's determination that injury or damage has occurred as a result of an act, omission, or work performed or neglected by the Contractor*, the Contractor shall be responsible for and shall reimburse the Department for all expenses associated with the injury or damage. Expenses include, but are not limited to: costs for investigating the ~~act, omission, injury or other action~~ *injury or other action*, financial penalties incurred by the Department as a result of the injury or damage, salary and expenses incurred by employees or consultants of the Commonwealth, road user expenses as determined

by the Department due to damage or loss of use of the project area, ~~attorney~~*attorneys'* fees, and expert witness fees. The Department may deduct the reimbursement of expenses from any payments ~~owed~~*due or to become due* the Contractor.

Upon determination by the Department of willful, flagrant or repetitious acts, omissions or ~~other actions~~*work performed or neglected by the Contractor* related to injury or damage to person or property ~~as provided in this Section~~, the Contractor shall ~~be responsible for and shall reimburse in addition to reimbursing~~ the Department for all expenses associated with the investigation as shown ~~as provided~~ herein, ~~and the Department will impose~~*be subject to* other appropriate ~~actions~~*sanctions*, as permitted by law, policy and Specifications, ~~such as~~*including* but not limited to, suspension of work, termination for ~~cause~~*default*, ~~and~~ removal from the bidders' list.

~~Once a~~*If the Contractor disputes the Department's* determination is made that injury or damage has resulted in an action against the Contractor ~~any respect~~, the Contractor shall have the right of appeal, ~~may submit a claim~~ in accordance with the provisions and requirements of Section 105.19.

~~Should any cost remain in dispute after appeal, resolution shall be handled in accordance with the provisions and requirements of Section 105.19.~~

107.13—Labor and Wages

The Contractor shall comply with the provisions and requirements of the workers' compensation law and public statutes that regulate hours of employment on public work.

- (a) **Predetermined Minimum Wages:** The provisions of laws requiring the payment of a minimum wage of a predetermined minimum wage scale for the various classes of laborers and mechanics, when such a scale is incorporated in the Contract, shall be expressly made a part of any Contract hereunder. The Contractor and his agents shall promptly comply with all such applicable provisions.

Any classification not listed and subsequently required shall be classified or reclassified in accordance with the wage determination. If other classifications are used, omission of classifications shall not be cause for additional compensation. The Contractor shall be responsible for determining local practices with regard to the application of the various labor classifications.

- (b) **Labor Rate Forms:** The Contractor shall complete Form C-28, indicating by classification the total number of employees, excluding executive and administrative employees, employed on the project. The Contractor shall also indicate on the form the compensation rate per hour for each classification. The Contractor shall submit an original and two copies of the form prior to the due date of the second estimate for payment and for each 90-day period thereafter until the work specified in the Contract has been completed.

If at the time of final acceptance the period since the last labor report is 30 days or more, the Contractor shall furnish an additional labor report as outlined herein prior to payment of the final estimate.

- (c) **Job Service Offices:** *In advance of the Contract starting date, the Contactor may contact the Job Service Office of the Virginia Employment Commission at the nearest location to secure referral of available qualified workers in all occupational categories. The closest*

office may be obtained by accessing the VEC website at <http://www.vec.virginia.gov> and “clicking” on “VEC Local Offices” to access “VEC Workforce Centers”.

107.14—Equal Employment Opportunity

- (a) The Contractor shall comply with the applicable provisions of presidential executive orders and the rules, regulations, and orders of the President’s Committee on Equal Employment Opportunity.
- (b) The Contractor shall maintain the following records and reports as required by the ~~contract~~**Contract** EEO provisions:
 - (a) ~~record~~**1) Record** of all applicants for employment
 - (b) ~~new~~**2) New** hires by race, work classification, hourly rate, and date employed
 - (c) ~~minority~~**3) Minority** and non-minority employees employed in each work classification
 - (d) ~~changes~~**4) Changes** in work classifications
 - (e) ~~employees~~**5) Employees** enrolled in approved training programs and the status of each
 - (f) ~~minority~~**6) Minority** subcontractor or subcontractors with meaningful minority group representation
 - (g) ~~copies~~**7) Copies** of Form C-57 submitted by subcontractors
- (c) If the Contract has a stipulation or requirement for trainees, the Contractor shall submit semiannual training reports in accordance with the instructions shown on the forms furnished by the Department. If the Contractor fails to submit such reports in accordance with the instructions, his monthly progress estimate for payment may be delayed.
- (d) The Contractor shall cooperate with the Department in carrying out EEO obligations and in the Department’s review of activities under the Contract. The Contractor shall comply with the specific EEO requirements specified herein and shall include these requirements in every subcontract of \$10,000 or more with such modification of language as may be necessary to make them binding on the subcontractor.
- (~~a~~**e**) **EEO Policy:** The Contractor shall accept as operating policy the following statement:

It is the policy of this Company to assure that applicants are employed and that employees are treated during employment without regard to their race, religion, sex, color, or national origin. Such action shall include employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship or on- the- job training.
- (~~b~~**f**) **EEO Officer:** The Contractor shall designate and make known to the Department an EEO Officer who can effectively administer and promote an active contractor EEO program and who shall be assigned adequate authority and responsibility to do so.

(e) Dissemination of Policy:

1. Members of the Contractor's staff who are authorized to hire, supervise, promote, and discharge employees or recommend such action or are substantially involved in such action shall be made fully aware of and shall implement the Contractor's EEO policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. The following actions shall be taken as a minimum:
 - a. Periodic meetings of supervisory and personnel office employees shall be conducted before the start of work and at least once every 6 months thereafter, at which time the Contractor's EEO policy and its implementation shall be reviewed and explained. The meetings shall be conducted by the EEO Officer or another knowledgeable company official.
 - b. New supervisory or personnel office employees shall be given a thorough indoctrination by the EEO Officer or another knowledgeable company official covering all major aspects of the Contractor's EEO obligations within 30 days following their reporting for duty with the Contractor.
 - c. The EEO Officer or appropriate company official shall instruct employees engaged in the direct recruitment of employees for the project relative to the methods followed by the Contractor in locating and hiring minority group employees.
2. In order to make the Contractor's EEO policy known to all employees, prospective employees, and potential sources of employees such as, but not limited to, schools, employment agencies, labor unions where appropriate, and college placement officers, the Contractor shall take the following actions:
 - a. Notices and posters setting forth the Contractor's EEO policy shall be placed in areas readily accessible to employees, applicants for employment, and potential employees.

The Contractor shall furnish, erect, and maintain at least two bulletin boards having dimensions of at least 48 inches in width and 36 inches in height at locations readily accessible to all personnel concerned with the project. The boards shall be erected immediately upon initiation of the ~~contract~~Contract work and shall be maintained until the completion of such work, at which time they shall be removed from the project. Each bulletin board shall be equipped with a removable glass or plastic cover that when in place will protect posters from weather or damage. The Contractor shall promptly post official notices on the bulletin boards. The costs for such work shall be included in the price bid for other ~~contract~~Contract items.

- b. The Contractor's EEO policy and the procedures to implement such policy shall be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

(d) Recruitment:

1. When advertising for employees, the Contractor shall include in all advertisements for employees the notation "An Equal Opportunity Employer" and shall insert all such advertisements in newspapers or other publications having a large circulation among

minority groups in the area from which the project work force would normally be derived.

2. Unless precluded by a valid bargaining agreement, the Contractor shall conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, state employment agencies, schools, colleges, and minority group organizations. The Contractor shall identify sources of potential minority group employees and shall establish procedures with such sources whereby minority group applicants may be referred to him for employment consideration.
3. The Contractor shall encourage his employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all employees. In addition, information and procedures with regard to referring minority group applicants shall be discussed with employees.

(e*i*) **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel action of any type shall be taken without regard to race, color, religion, sex, or national origin.

1. The Contractor shall conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of personnel.
2. The Contractor shall periodically evaluate the spread of wages paid within each classification to determine whether there is evidence of discriminatory wage practices.
3. The Contractor shall periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the Contractor shall promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, corrective action shall include all affected persons.
4. The Contractor shall investigate all complaints of alleged discrimination made to him in connection with obligations under the Contract, attempt to resolve such complaints, and take appropriate corrective action. If the investigation indicates that the discrimination may affect persons other than the complainant, corrective action shall include those persons. Upon completion of each investigation, the Contractor shall inform every complainant of all avenues of appeal.

(f*j*) **Training:**

1. The Contractor shall assist in locating, qualifying, and increasing the skills of minority group and women employees and applicants for employment.
2. Consistent with work force requirements and as permissible under federal and state regulations, the Contractor shall make full use of training programs, i.e., apprenticeship and on- the- job training programs for the geographical area of ~~contract~~**Contract** performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.
3. The Contractor shall advise employees and applicants for employment of available training programs and the entrance requirements for each.

4. The Contractor shall periodically review the training and promotion potential of minority group employees and shall encourage eligible employees to apply for such training and promotion.
 5. ~~If the Contract does not provide a separate pay item for trainees, the cost associated with the training specified herein shall be included in the price bid for other items in the Contract.~~
 - 6.5. If the Contract provides a pay item for trainees, training shall be in accordance with the requirements of Section 518.
- (g/k) **Unions:** If the Contractor relies in whole or in part on unions as a source of employees, best efforts shall be made to obtain the cooperation of such unions to increase opportunities for minority groups and women in the unions and to effect referrals by such unions of minority and women employees. Actions by the Contractor, either directly or through his Contractor's Association acting as agent, shall include the following procedures:
1. In cooperation with the unions, best efforts shall be used to develop joint training programs aimed toward qualifying more minority group members and women for membership in the unions and to increase the skills of minority group employees and women so that they may qualify for higher-paying employment.
 2. Best efforts shall be used to incorporate an EEO clause into union agreements to the end that unions shall be contractually bound to refer applicants without regard to race, color, religion, sex, or national origin.
 3. Information shall be obtained concerning referral practices and policies of the labor union except that to the extent the information is within the exclusive possession of the union. If the labor union refuses to furnish the information to the Contractor, the Contractor shall so certify to the Department and shall set forth what efforts he made to obtain the information.
 4. If a union is unable to provide the Contractor with a reasonable flow of minority and women referrals within the time limit set forth in the union agreement, the Contractor shall, through his recruitment procedures, fill the employment vacancies without regard to race, color, religion, sex, or national origin, making full efforts to obtain qualified or qualifiable minority group persons and women. If union referral practice prevents the Contractor from complying with the EEO requirements, the Contractor shall immediately notify the Department.
- (h/l) **Subcontracting:** The Contractor shall use best efforts to use minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of ~~MBE, DBE, SWaM and WBE~~ **MBE, DBE, SWaM and WBE** construction firms from the Department. If ~~MBE, SWaM and DBE, or WBE~~ **MBE, SWaM and DBE, or WBE** goals are established in the proposal, the Contractor shall comply with the requirements of Section 107.15.
- The Contractor shall use best efforts to ensure subcontractor compliance with his EEO obligations.
- (i/m) **Records and Reports:** The Contractor shall keep such records as are necessary to determine compliance with his EEO obligations. The records shall be designed to indicate the following:

1. the number of minority and nonminority group members and females employed in each work classification on the project
2. the progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and females if unions are used as a source of the work force
3. the progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees
4. the progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees

Records shall be retained for a period of three years following completion of the ~~contract~~*Contract* work and shall be available at reasonable times and places for inspection by authorized representatives of the Department.

Each month for the first three months after construction begins and every month of July thereafter for the duration of the project, Form C-57 shall be completed to indicate the number of minority, nonminority, and female employees currently engaged in each work classification shown on the form. The completed Form C-57 shall be submitted within three weeks after the reporting period. Failure to do so may result in delay of approval of the Contractor's monthly progress estimate for payment.

107.15—Use of *Small, Women-Owned, and Minority-Owned Businesses (SWaMS)*

It is the policy of the Department that *Small, Women-Owned, and Minority-Owned Businesses (SWaMS)* shall have the maximum opportunity to participate in the performance of the Contract. The Contractor is encouraged to take necessary and reasonable steps to ensure that *SWaMS* have the maximum opportunity to compete for and perform work on the Contract, including participation in any subsequent subcontracts.

~~MBE~~ *SWaM firm* shall mean a small business concern (as defined pursuant to ~~Section 3 of the Code of the Small Business Act~~*Virginia, Title 2.2 -1401 for the purpose of reporting small, women-owned, and implementing regulations*) *minority-owned business participation in state contracts and purchases pursuant to §§ 2.2-1404 and 2.2-1405. To that end the following terms shall apply:*

Small business means a business that is at least 51 percent independently owned and controlled by one or more ~~minorities~~ individuals who are U.S. citizens or women. ~~Owned and controlled means:~~ at least 51 percent of the business is owned by one ~~legal resident aliens and together with affiliates, has 250 or fewer employees, or average annual gross receipts of \$10 million or less averaged over the previous three years. One or more minorities or~~ of the individual owners shall control both the management and daily business operations of the small business.

Women-owned business means a business concern that is at least 51 percent owned by one or more women ~~or, in~~ who are U.S. citizens or legal resident aliens, or in the case of a publicly owned business corporation, partnership, or limited liability company or other entity, at least 51 percent ~~51 percent~~ of the stock ~~equity ownership interest~~ is owned by one or more ~~minorities or~~ women; ~~and~~ who are citizens of the United States or non-citizens who are in full compliance with

the United States immigration law, and both the management and daily business operations are controlled by one or more such individuals~~women who are U.S. citizens or legal resident aliens.~~

Minority shall mean a person who is a citizen or lawful permanent resident of the United States and is a bona fide member of a minority group, so regarded by that particular minority community, and who is: ***owned business** means a business concern that is at least 51percent owned by one or more minority individuals or in the case of a corporation, partnership, or limited liability company or other entity, at least 51percent of the equity ownership interest in the corporation, partnership, or limited liability company or other entity is owned by one or more minority individuals and both the management and daily business operations are controlled by one or more minority individuals.*

~~Black~~ ***(Minority individual** means an individual who is a citizen of the United States or a non-citizen who is in full compliance with United States immigration law and who satisfies one or more of the following definitions:*

1. ***African American** means a person having origins in any of the ~~black racial groups of Africa)~~ or; original peoples of Africa and who is regarded as such by the community of which this person claims to be a part.*

~~Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race) or;~~

~~Portuguese (a person of Portuguese, Brazilian, or other Portuguese culture or origin, regardless of race) or;~~

2. ***Asian American** ~~(means~~ a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands) ~~or;~~ **including but not limited to Japan, China, Vietnam, Samoa, Laos, Cambodia, Taiwan, Northern Mariana, the Philippines, a U.S. territory of the Pacific, India, Pakistan, Bangladesh, or Sri Lanka and who is regarded as such by the community of which this person claims to be a part.***

~~3. **Hispanic American Indian**~~ ***means a person having origins in any of the Spanish-speaking peoples of Mexico, South or Alaskan-Central America, or the Caribbean Islands or other Spanish or Portuguese cultures and who is regarded as such by the community of which this person claims to be a part.***

4. ***Native ~~(American~~ means** a person having origins in any of the original peoples of North America); ~~or and who is regarded as such by the community of which this person claims to be a part or who is recognized by a tribal organization.~~*

5. *a member of another group, or other individual, found to be economically and socially disadvantaged by the Small Business Administration under 8(a) of the Small Business Act as amended (15 U.S.C. 637[a]).*

~~The~~ ***State agency** means any authority, board, department, instrumentality, institution, agency, or other unit of state government. "State agency" shall not include any county, city, or town.*

*A list of Virginia Department will furnish, upon request, a list of **Minority Business Enterprise (DMBE)** certified MBEs. This list shall not be construed as an endorsement of **SWaM** firms is maintained on the quality or performance of **DMBE** web site (<http://www.dmbc.state.va.us/>) under the business, but is simply a listing of firms who are certified by **SWaM Vendor Directory** link.*

SWaM certification entitles firms to participate in VDOT's SWaM program; however, this certification does not guarantee that the Department as being MBEs firm will obtain work nor does it attest to the firm's abilities to perform any particular work.

The Contractor is encouraged to use the services of banks owned or controlled by minorities or females; however, use of such services will not be credited toward participation achievement for the Contract. The Department has on file, and will make available on request, the names and addresses of known minority and female owned banks in the Commonwealth of Virginia.

The Contractor shall designate and make known to the Department a liaison officer who is assigned the responsibility of actively and effectively administering, encouraging and promoting a responsive program for the use of ~~MBEs~~ *SWaMs*.

The performance of the Contract for the purpose of this specification shall be interpreted to include, but not necessarily be limited to, subcontracting; furnishing materials, supplies, and services; and, leasing equipment *or where applicable, any combination thereof.*

If the Contractor intends to sublet a portion of the work on the project *in accordance with the provisions of Section 105.06 of the Specifications*, the Contractor is encouraged to seek out and consider ~~MBEs~~ *SWaMs* as potential subcontractors. The Contractor is encouraged to contact ~~MBEs~~ *SWaMs* to solicit their interest, capability, and prices and shall retain on file the proper documentation to substantiate such contacts.

By signing the bid, the bidder certifies to the following:

- That on the work proposed to be sublet and shown on ~~the form~~ *Form C-31 for Contractors Proposal to Sublet*, the bidder has taken reasonable steps to seek out and consider ~~MBEs~~ *SWaMs* as potential subcontractors.
- That, if awarded the project, any work proposed to be sublet and not shown on the form for *Contractors Proposal to Sublet*, the same reasonable steps certified herein will be taken.

If the Department has determined that specific opportunities for participation by ~~MBEs~~ *SWaMs* are available on a particular Contract, *and the bidder chooses to claim credit for SWaM participation, the extent of* such participation will be shown as a percentage of the Contract amount and will be indicated in the proposal on Form C-61, ~~Potential MBE~~ *SWaM Participation*.

If the bidder is ~~an MBE~~ *a SWaM* that is owned and controlled by a minority female(s), participation achievement may be shown as either minority or female, but not both, *as the certification indicates*. Further, each bidder shall comply with the requirements of Section 102.01.

If the apparent low bidder is a currently certified ~~MBE~~ *SWaM* firm, the ~~MBE~~ *SWaM* requirements of this provision will not be applicable except for those referring to the reporting of participation achievement.

The following are examples of efforts the Department encourages *bidders and* Contractors to make in soliciting ~~MBE~~ *SWaM* participation.- Other factors or types of efforts may be relevant in appropriate cases. The Contractor is encouraged to:

- (a) attend any pre-solicitation or pre-bid meetings at which ~~MBEs~~ *SWaMs* could be *present and/or* informed of contracting and subcontracting opportunities;
- (b) advertise in general circulation, trade association and minority-focus media concerning the subcontracting opportunities;

- (c) provide written notice to a reasonable number of specific ~~MBEs~~*SWaMs* that their interest in the Contract ~~was~~*is* being solicited in sufficient time to allow the ~~MBEs~~*SWaMs* to participate effectively;
- (d) follow-up initial solicitations of interest by contacting ~~MBEs~~*SWaMs* to determine with certainty whether the ~~MBEs were~~*SWaMs are* interested;
- (e) select portions of the work to be performed by ~~MBEs~~*SWaMs* in order to increase the likelihood of obtaining ~~MBE~~*SWaM* participation (including, where appropriate, breaking down ~~contracts~~*proposed contract work* into economically feasible units to facilitate ~~MBE~~*SWaM* participation);
- (f) provide interested ~~MBEs~~*SWaMs* with adequate information about the plans, Specifications, and requirements of the Contract;
- (g) negotiate in good faith with interested ~~MBEs~~*SWaMs*, not rejecting ~~MBEs~~*SWaMs* as unqualified without sound reasons based on a thorough investigation of their capabilities;
- (h) make efforts to assist interested ~~MBEs~~*SWaMs* in obtaining bonding, lines of credit, or insurance required by the Department or Contractor;
- (i) make efforts to assist interested ~~MBEs~~*SWaMs* in obtaining necessary equipment, supplies, materials, or other necessary or related assistance or services; and,
- (j) effectively use the services of available minority, *woman and small business* community organizations; minority, *woman and small business* contractors' groups; local, state and federal minority, *woman and small* business assistance offices; and other organizations that provide assistance in the recruitment and placement of ~~MBEs~~*SWaMs*.

Any agreement between a bidder and an ~~MBE~~*a SWaM* whereby the ~~MBE~~*SWaM* agrees not to provide quotations for performance of work to other bidders is prohibited.

~~Within~~*No later than* 14 days after the opening of proposals ~~date stated in the bid proposal~~, in accordance with *provisions of* Section 102.12, if the apparent low bidder, as read at the bid opening, is reporting participation ~~achievement~~*commitment* on the Contract, he shall submit *by fax* to the Department a fully executed Form C-61 showing the name(s) and certification ~~number(s)~~*numbers* of ~~any~~*the* currently certified ~~MBEs~~*SWaMs* who will perform work ~~eligible~~ to be reported as said participation credit.

The signatures on Form C-61 shall be those of *the bidder or* authorized representatives of the bidder as shown on Forms C-37 and C-38A or as authorized by letter from the bidder.

~~If it is determined, subsequent to the bid opening, that the apparent low bidder as read at the bid opening has changed, the new apparent low bidder will be advised by letter and shall submit the information required herein within 14 days after the date of notification.~~

Any award made by the Board prior to receipt of the information required will be conditional, pending receipt of such information.

The Contractor shall furnish, and require each subcontractor to furnish, ~~prior to final acceptance of the Contract~~*on a quarterly basis*, information relative to all ~~MBE~~*SWaM* involvement on the project ~~if such work is to be claimed as participation achievement and verification is available~~. The information shall be indicated on Form C-63, ~~MBE/DBE/~~*and* SWaM Payment Compliance Report or by copies of canceled checks with appropriate identifying notations. If participation achievement is

to be fulfilled with an ~~an MBE~~ *a SWaM* whose name has not been previously furnished *to the Department for the Contract in question*, an initial or revised Form C-61, whichever is appropriate, shall be submitted prior to such ~~MBE~~ *SWaM* beginning the work. Failure to provide the Department the forms by the ~~Contractor's semi-final estimate~~ *fifth of the month following each quarterly reporting period* may result in delay of approval of the Contractor's estimate for payment.

If an ~~an MBE~~ *a SWaM*, through no fault of the Contractor, is unable or unwilling to fulfill his agreement with the Contractor, the Contractor shall immediately notify the Department and provide all relevant facts. If any subcontractor is relieved of the responsibility to perform work under their subcontract, the Contractor is encouraged to take *the appropriate* steps to obtain an ~~an MBE~~ *a SWaM* to perform an equal or greater dollar value of the *remaining subcontracted* work. The substitute ~~MBE's~~ *SWaM's* name, description of the work, and dollar value of the work shall be submitted to the Department on Form C-61 prior to such ~~MBE~~ *SWaM* beginning the work, if such work is to be counted for participation achievement.

107.16—Environmental Stipulations

By signing the bid, the bidder shall have stipulated (1) that any facility to be used in the performance of the Contract (unless the Contract is exempt under the Clean Air Act as amended [42 U.S.C. 1857, et seq., as amended by P.L. 91-604], the Federal Water Pollution Control Act as amended [33 U.S.C. 1251 et seq. as amended by P.L. 92-500], and Executive Order 11738 and regulations in implementation thereof [40 C.F.R., Part 15]) is not listed on the EPA's List of Violating Facilities pursuant to 40 C.F.R. 15.20; and (2) that the *bidder shall promptly notify* Department ~~will be promptly notified~~ prior to the award of the Contract if the bidder receives any communication from the Director, Office of Federal Activities, EPA, indicating that a facility to be used for the Contract is under consideration to be listed on the EPA's List of Violating Facilities.

No separate payment will be made for the work or precautions described herein except where provided for as a specific item in the Contract or except where provision has been made for such payment in these Specifications.

Reference is made in various subsections of this section to Tidewater, Virginia. For the purposes of identifying the affected regions assigned to this designation and the requirements therein Tidewater, Virginia is defined as the Counties of Accomack, Arlington, Caroline, Charles City, Chesterfield, Essex, Fairfax, Gloucester, Hanover, Henrico, Isle of Wight, James City, King George, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northampton, Northumberland, Prince George, Prince William, Richmond, Spotsylvania, Stafford, Surry, Westmoreland and York and the Cities of Alexandria, Chesapeake, Colonial Heights, Fairfax, Falls Church, Fredericksburg, Hampton, Hopewell, Newport News, Norfolk, Petersburg, Poquoson, Portsmouth, Richmond, Suffolk, Virginia Beach and Williamsburg.

- (a) **Erosion and Siltation:** The Contractor shall exercise every reasonable precaution, including temporary and permanent soil stabilization measures, throughout the duration of the project to control erosion and prevent siltation of adjacent lands, rivers, streams, wetlands, lakes, and impoundments. Soil stabilization and/or erosion control measures shall be applied to erodible soil or ground materials exposed by any activity associated with construction, including clearing, grubbing, and grading, but not limited to local or on-site sources of materials, stockpiles, disposal areas and haul roads.

The Contractor shall comply with the requirements of Sections 301.02 and 303.03. Should the Contractor as a result of negligence or noncompliance leave an area exposed more than 15 days, the cost of temporary soil stabilization *performed* in accordance with the provisions of Section 303 shall be at the Contractor's expense. ~~If~~ *As determined by the*

Engineer, if the delay in stabilizing an exposed area of land is due to circumstances beyond the Contractor's control, the Department will be responsible for the expense.

~~Temporary~~*The Contractor shall coordinate temporary soil stabilization measures shall be*
~~coordinated with the work~~*Work* to ensure effective and continuous erosion and sediment control. Permanent erosion control measures and drainage facilities shall be installed as the work progresses.

For projects that disturb 10,000 square feet or greater of land or 2,500 square feet or greater ~~of land~~ in Tidewater, Virginia, the Contractor shall have within the ~~limits of the project~~ *limits* during land disturbance activities, an employee certified by the Department in Erosion and Sediment control who shall inspect erosion and siltation control devices and measures for proper installation and operation ~~immediately after each rainfall, at least daily during periods of prolonged rainfall, and weekly when no rainfall event occurs and promptly report their findings to the Inspector.~~ *Failure Inspections shall include all areas of the site disturbed by construction activity and all support facilities on Department rights-of-ways or easements covered by the project's Stormwater Pollution Prevention Plan. Inspections shall be conducted at least once every 14 calendar days and within 48 hours following any runoff producing storm event (Note: If an inspection is conducted as a result of a storm event, another inspection is not required for 14 calendar days following provided there are no more runoff producing storm events during the that period). For those areas that have been temporarily stabilized or runoff is unlikely to occur due to winter conditions (e.g., the site is covered with snow or ice or frozen ground exists), inspections shall be conducted at least once a month. Those definable areas where final stabilization has been achieved will not require further inspections provided such areas have been identified in the project's Stormwater Pollution Prevention Plan. If the Contractor fails to maintain a Department certified employee within the limits of the project will result in the limits during the performance of a land-disturbing activity, the Engineer suspending*
~~all work related to any land disturbing activity until such time as a certified employee is present on the project. Failure on the part of~~*will suspend*
~~the Contractor to maintain appropriate erosion and siltation control devices in a functioning condition may result in, the Engineer notifying~~*will notify*
~~the Contractor in writing of specific deficiencies. Deficiencies~~*The Contractor shall be corrected immediately correct these deficiencies.* If the Contractor fails to correct or take appropriate actions to correct the specified deficiencies within 24 hours after receipt of such notification, the Department may do one or more of the following: require the Contractor to suspend work in other areas and concentrate efforts towards correcting the specified deficiencies, withhold payment of monthly progress estimates, or proceed to correct the specified deficiencies and deduct the entire cost of such work from monies due the Contractor. ~~Failure on the part of the Contractor to maintain a Department certified erosion and sediment control employee within the project limits when land disturbance activities are being performed will result in the Engineer suspending work related to any land disturbance activity until such time as the Contractor is in compliance with this requirement, plus 25 percent for supervisory and administrative personnel, from monies due the Contractor.~~

(b) **Pollution:**

1. **Water:** The Contractor shall exercise every reasonable precaution throughout the duration of the project to prevent pollution of ~~rivers, streams, and impoundments.~~ *State Waters. According to 4VAC50-60-10, "State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands.* Pollutants such as, but not limited to, chemicals, fuels, lubricants, bitumens, raw sewage, paints, sedimentation, and other harmful material shall not be discharged into or alongside rivers, streams, or

impoundments or into channels leading to them. ~~The~~ *Prior to mobilizing to the project site, the Contractor shall provide the Engineer submit a contingency plan for reporting and to the Engineer describing their response to a discharge threat and the immediate actions to be taken in the event of a dump, discharge, or spill to contain, clean up and mitigate the discharge within eight hours after he has mobilized to the project site the shortest feasible time. The contingency plan shall include a complete listing, including 24-hour phone numbers, of all federal, state and local agencies required to be notified in event of a discharge, and the position title, address and phone number of the individual(s) authorized to act on behalf of the Contractor to implement containment and cleanup actions.*

Construction discharge water shall be filtered to remove deleterious materials prior to discharge into state waters. Filtering shall be accomplished by the use of a standard dewatering basin or a dewatering bag. Dewatering bags shall conform to the requirements of Section 245. During specified spawning seasons, discharges and construction activities in spawning areas of state waters shall be restricted so as not to disturb or inhibit aquatic species that are indigenous to the waters. Neither water nor other effluence shall be discharged onto wetlands or breeding or nesting areas of migratory waterfowl. When used extensively in wetlands, heavy equipment shall be placed on mats. Temporary construction fills and mats in wetlands and flood plains shall be constructed of approved nonerrodible materials and shall be removed by the Contractor to natural ground when the Engineer so directs.

If the Contractor dumps, discharges, or spills any ~~oil or chemical~~ *pollutant* that reaches or has the potential to reach a waterway, he shall immediately notify all appropriate jurisdictional state and federal agencies ~~in accordance with~~ *according to the contingency plan and* the requirements of Section 107.01, and shall take immediate actions to contain, remove, and properly dispose of the ~~oil or chemical~~ *pollutant*.

Excavation material shall be disposed of in approved areas above the mean high water mark shown on the plans in a manner that will prevent the return of solid or suspended materials to state waters. If the mark is not shown on the plans, the mean high water mark shall be considered the elevation of the top of stream banks.

Constructing new bridge(s) and dismantling and removing existing bridge(s) shall be accomplished in a manner that will prevent the dumping or discharge of construction or disposable materials into rivers, streams, or impoundments.

Construction operations in rivers, streams, or impoundments shall be restricted to those areas where identified on the plans and to those that must be entered for the construction of structures. Rivers, streams, and impoundments shall be cleared of falsework, piling, debris, or other obstructions placed therein or caused by construction operations. Stabilization of the streambed and banks shall occur immediately upon completion of work if work is suspended for more than 15 days.

The Contractor shall prevent stream constriction that would reduce stream flows below the minimum, as defined by the State Water Control Board, during construction operations.

If it is necessary to relocate an existing stream or drainage facility temporarily to facilitate construction, the Contractor shall design and provide temporary channels or culverts of adequate size to carry the normal flow of the stream or drainage facility. The Contractor shall submit a temporary relocation design to the Engineer for review and acceptance in sufficient time to allow for discussion and correction prior to

beginning the work the design covers. Costs for the temporary relocation of the stream or drainage facility shall be included in the Contract price for the related pipe or box culvert, unless specifically provided for under another ~~Pay Item~~. *Contract pay item*. Stabilization of the streambed and banks shall occur immediately upon completion of, or during the work or if the work is suspended for more than 15 days.

Temporary bridges or other minimally invasive structures shall be used wherever the Contractor finds it necessary to cross a stream more than twice in a 6 month period, unless otherwise authorized by water quality permits issued by the U. S. Army Corps of Engineers, Virginia Marine Resources Commission or the Virginia Department of Environmental Quality for the Contract.

2. **Air:** The Contractor shall comply with the provisions of Section 107.01 and the State Air Pollution Control Law and Rules of the State Air Pollution Control Board, including notifications required therein.

Burning shall be performed in accordance with all applicable local laws and ordinances and under the constant surveillance of watchpersons. Care shall be taken so that the burning of materials does not destroy or damage property or cause excessive air pollution. The Contractor shall not burn rubber tires, asphalt, used crankcase oil, or other materials that produce dense smoke. Burning shall not be initiated when atmospheric conditions are such that smoke will create a hazard to the motoring public or airport operations. Provisions shall be made for flagging vehicular traffic if visibility is obstructed or impaired by smoke. At no time shall a fire be left unattended.

Asphalt mixing plants shall be designed, equipped, and operated so that the amount and quality of air pollutants emitted will conform to the rules of the State Air Pollution Control Board.

- a. ***VOC Emission Control Areas** - The Contractor is advised that when the project is located in a volatile organic compound (VOC) emissions control area identified in the State Air Control Board Regulations (9 VAC 5-20-206) and in the Table I-3 below the following limitations shall apply:*

- (1) *Open burning is prohibited during the months of May, June, July, August, and September in VOC Emissions Control areas*
- (2) *Cutback asphalt is prohibited April through October except when use or application as a penetrating prime coat or tack is necessary in VOC Emissions Control areas*

*Virginia Department of Environmental Quality Volatile Organic Compound (VOC) Emissions Control Areas**

TABLE I-3		
<i>VOC Emissions Control Area</i>	<i>VDOT District</i>	<i>Jurisdiction</i>

<i>Northern Virginia</i>	<i>NOVA</i>	<i>Alexandria City Arlington County Fairfax County Fairfax City Falls Church City Loudoun County Manassas City Manassas Park City Prince William County</i>
<i>Northern Virginia</i>	<i>Fredericksburg</i>	<i>Stafford County</i>
<i>Fredericksburg</i>	<i>Fredericksburg</i>	<i>Spotsylvania County Fredericksburg City</i>
<i>Hampton Roads</i>	<i>Fredericksburg</i>	<i>Gloucester County</i>
<i>Hampton Roads</i>	<i>Hampton Roads</i>	<i>Chesapeake City Hampton City Isle of Wight County James City County Newport News City Norfolk City Poquoson City Portsmouth City Suffolk City Virginia Beach City Williamsburg City York County</i>
<i>Richmond</i>	<i>Richmond</i>	<i>Charles City County Chesterfield County Colonial Heights City Hanover County Henrico County Hopewell City Petersburg City Prince George County Richmond City</i>
<i>Western Virginia</i>	<i>Staunton</i>	<i>Frederick County Winchester City</i>
<i>Western Virginia</i>	<i>Salem</i>	<i>Roanoke County Botetourt County Roanoke City Salem City</i>

** Regulations for the Control and Abatement of Air Pollution (9 VAC 5-20-206)*

See the 9 VAC 5-40, Article 39 (Emission Standards for Asphalt Paving Operations) and 9 VAC 5-130 (Regulation for Open Burning) for further clarification.

Emission standards for asbestos incorporated in the EPA's National Emission Standards for Hazardous Air Pollutants apply to the demolition or renovation of any institutional, commercial, or industrial building, structure, facility,

installation, or portion thereof that contains friable asbestos or where the Contractor's methods for such actions will produce friable asbestos.

The Contractor shall submit demolition notification the United States Environmental Protection Agency (USEPA) and the Virginia Department of Labor and Industry a minimum of 10 business days prior to starting work on the following bridge activities:

- a) Dismantling and removing existing structures*
- b) Moving an entire structure*
- c) Reconstruction and repairs involving the replacement of any load-bearing component of a structure*

Address notifications to:

*Virginia Department of Labor and Industry
Asbestos Program
Powers-Taylor Building
13 South Thirteenth Street
Richmond, VA 23219*

*Land and Chemical Division
EPA Region III
Mail Code LC62
1650 Arch St.
Philadelphia, PA 19103-2029*

- (3-) **Noise:** The Contractor's operations shall be performed so that exterior noise levels measured during a noise-sensitive activity shall not exceed 80 decibels. Such noise level measurements shall be taken at a point on the perimeter of the construction limit that is closest to the adjoining property on which a noise sensitive activity is occurring. A noise-sensitive activity is any activity for which lowered noise levels are essential if the activity is to serve its intended purpose and not present an unreasonable public nuisance. Such activities include, but are not limited to, those associated with residences, hospitals, nursing homes, churches, schools, libraries, parks, and recreational areas.

The Department may monitor construction-related noise. If construction noise levels exceed 80 decibels during noise sensitive activities, the Contractor shall take corrective action before proceeding with operations. The Contractor shall be responsible for costs associated with the abatement of construction noise and the delay of operations attributable to noncompliance with these requirements.

The Department may prohibit or restrict to certain portions of the project any work that produces objectionable noise between 10 P.M. and 6 A.M. If other hours are established by local ordinance, the local ordinance shall govern.

Equipment shall in no way be altered so as to result in noise levels that are greater than those produced by the original equipment.

When feasible, the Contractor shall establish haul routes that direct his vehicles away from developed areas and ensure that noise from hauling operations is kept to a minimum.

These requirements shall not be applicable if the noise produced by sources other than the Contractor's operation at the point of reception is greater than the noise from the Contractor's operation at the same point.

- (c) ~~Forests~~**Forest Fires:** The Contractor shall take all reasonable precautions to prevent and suppress forest fires in any area involved in construction operations or occupied by him as a result of such operations. The Contractor shall cooperate with the proper authorities of the state and federal governments in reporting, preventing, and suppressing forest fires. Labor, tools, or equipment furnished by the Contractor upon the order of any forest official issued under authority granted the official by law shall not be considered a part of the Contract. The Contractor shall negotiate with the proper forest official for compensation for such labor, tools, or equipment
- (d) **Archeological, Paleontological, and Rare Mineralogical Findings:** In the event of the discovery of prehistoric ruins, Indian or early settler sites, burial grounds, relics, fossils, meteorites, or other articles of archeological, paleontological, or rare mineralogical interest during the prosecution of work, the Contractor shall act immediately to suspend work at the site of the discovery and notify the Engineer. The Engineer will immediately notify the proper state authority charged with the responsibility of investigating and evaluating such finds. The Contractor shall cooperate and, upon the request of the Engineer, assist in protecting, mapping, and removing the findings. Labor, tools, or equipment furnished by the Contractor for such work will be paid for in accordance with the requirements of Section 104.03. Findings shall become the property of the Commonwealth unless they are located on federal lands, in which event they shall become the property of the U.S. government.

When such findings delay the progress or performance of the work, the Contractor shall notify the Engineer in accordance with the provisions of Sections 108.03 and Section 109.05.

- (e) **Storm Water Pollution Prevention Plan and *Virginia Stormwater Management Program General Permit for the Discharge of Stormwater from Construction Activities***

~~The Storm Water~~**A Stormwater** Pollution Prevention Plan (SWPPP) ~~is comprised of~~**identifies potential sources of pollutants which may reasonably be expected to affect the stormwater discharges from the construction site and any on-site or off-site support facilities located on Department rights-of-way and easements. The SWPPP also describes and ensures implementation of practices which will be used to reduce pollutants in such discharges.**

The SWPPP shall include, but not **be** limited to, the **approved** Erosion and Sediment Control (ESC) Plan, the **approved** Stormwater Management (SWM) Plan and related Specifications and Standards contained within all ~~contract~~**Contract** documents and shall be required for all land-disturbing activities that disturb 10,000 square feet or greater, or 2,500 square feet or greater in Tidewater, Virginia.

~~For land~~**Land**-disturbing activities that disturb ~~1 one~~**one** acre or greater, or ~~2500~~**2,500** square feet or greater in an area designated as a Chesapeake Bay Preservation Area, **require** coverage under the Department of Conservation and Recreation's Virginia Stormwater

Management Program (VSMP) General *Permit for the Discharge of Stormwater from Construction* Permit DCR-01 is required. Where applicable *Activities (hereafter referred to as the VSMP Construction Permit)*. According to IIM-LD-242, the Department will apply for and ~~retain~~ *secure VSMP Construction Permit coverage under this permit for the all applicable* land disturbing activity. The requirements of this permit will be satisfied by the ~~Contractor's compliance with activities on Department rights-of-ways or easements for which it has contractual control, including off-site support facilities on Department rights-of-ways or easements that directly relate to the project's SWPPP terms and conditions~~ *construction site.*

The Contractor shall be responsible for *securing VSMP Construction Permit coverage for off-site support facilities that are not located on VDOT rights of way or easements.*

The required contents of a SWPPP for those land disturbance activities requiring coverage under the VSMP Construction Permit are found in Section II D of the General Permit section of the VSMP Regulations (4VAC50-60-1170). While a SWPPP is an important component of the VSMP Construction Permit, it is only one of the many requirements that must be addressed in order to be in full compliance with the conditions of the permit.

The Contractor and all other persons that oversee or perform activities covered by the VSMP Construction Permit shall be responsible for reading, understanding, and complying with all of the terms and conditions and requirements of the DCR-01 General Permit permit and the project's SWPPP as follows including, but not limited to, the following:

1. Project Implementation Responsibilities

The Contractor shall be responsible for the installation, maintenance, inspection, and, *on a daily basis*, ensuring the functionality of all erosion and sediment control measures ~~on a daily basis~~ and all other stormwater and pollutant runoff control measures identified within or referenced within the *SWPPP*, plans, Specifications, permits, and other ~~contract~~ *Contract* documents.

The Contractor shall take all reasonable steps to prevent or minimize any stormwater or non-stormwater discharge that will have a reasonable likelihood of adversely affecting human health or public and/or private properties.

2. Certification Requirements

In addition to satisfying the personnel certification requirements contained herein, the Contractor shall certify his activities by completing, signing, and submitting Form C-45 VDOT SWPPP Contractor and Subcontractor Certification Statement to the Engineer at least 7 days prior to commencing any project related land-disturbing activities, ~~both on-site and off-site~~ *within the project limits and any support facilities located on VDOT rights of way or easements.*

3. ~~Off Site (Outside the Construction Limits)~~ *SWPPP Requirements for Support Facilities*

~~The Contractor shall develop erosion and sediment control plan(s) and stormwater pollution prevention plan(s) for submission and acceptance by the Engineer prior to usage of any~~ *Department will secure VSMP Construction Permit coverage for support facilities, located on Department rights of way or easements according to IIM-LD-242. The Contractor shall be responsible for securing separate VSMP Construction Permit*

coverage for off-site support facilities that are not located on Department rights of way or easements.

Support facilities shall include, but not be limited to, borrow and disposal areas, construction materials or equipment and waste material storage areas, equipment and vehicle storage and fueling areas, storage areas for fertilizers or chemicals, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction process. Such plans, upon acceptance, shall become a part of and subject to the overall project plan, the VSMP General Construction Permit, and all other contract requirements.

Support Facilities located on Department rights-of-way or easements:

- a. For those support facilities that Department considered in the original Registration Statement for VSMP Construction Permit coverage for the project, the Contractor shall develop the erosion and sediment control plan(s) according to IIM-LD-11, and stormwater pollution prevention plan(s) according to IIM-LD-246, and submit the plans to the Engineer for review and approval. Once approved, the Engineer will notify the Contractor in writing that the plans are accepted as a component of the Project SWPPP and VSMP Construction Permit (where applicable) and shall be subject to all conditions and requirements of the VSMP Construction Permit and all other contract documents.*
- b. For support facilities not considered in the original Registration Statement for VSMP Construction Permit coverage, the Contractor shall develop the erosion and sediment control plan(s) according to IIM-LD-11, and stormwater pollution prevention plan(s) according to IIM-LD-246, and submit the plans to the Engineer for review and approval. Once approved by the Engineer, the Department will secure VSMP Construction Permit coverage according to IIM-LD-242. After the Department secures VSMP Construction Permit coverage for the support facility, the Engineer will notify the Contractor in writing. The support facility shall be subject to all conditions and requirements of the VSMP Construction Permit and all other contract documents.*

4. Reporting Procedures

a. Inspection Requirements

The Contractor shall be responsible for conducting inspections in accordance with the requirements herein. The Contractor shall document such inspections by completion of Form C-107 (a) and (b), Construction Runoff Control Inspection Form and Continuation Sheet, in strict accordance with the directions contained within the form.

b. Unauthorized Discharge Requirements

The Contractor shall not discharge into state waters sewage, industrial wastes, other wastes or any noxious or deleterious substances nor shall otherwise alter the physical, chemical, or biological properties of such waters that render such waters detrimental for or to domestic use, industrial consumption, recreational or other public uses.

(1) Notification of non-compliant discharges

The Contractor shall immediately notify the Engineer upon the discovery of or potential of any unauthorized, unusual, extraordinary, or non-compliant discharge from the land disturbing activity. Where immediate notification is not possible, such notification shall be not later than 24 hours after said discovery.

(2) Detailed report requirements for non-compliant discharges

The Contractor shall submit to the Engineer within 5 days of the discovery of any actual or potential non-compliant discharge a written report describing details of the discharge to include its volume, location, cause, and any apparent or potential effects on private and/or public properties and state waters or endangerment to public health, as well as steps being taken to eliminate the discharge. A completed Form C-107 (a) and (b) shall be ~~used for~~*included in* such reports.

5. ~~Plans~~, Changes, Deficiencies and Revisions

a. ~~Contractor SWPPP~~

~~The Contractor shall develop and provide a SWPPP that documents the location and description of potential pollutant sources such as vehicle fueling areas, storage areas for fertilizers or chemicals, sanitary waste facilities, construction and waste material storage areas, etc. prior to any such pollutant sources being established on the project site. Such plans and documentation shall include a description of the controls to reduce, prevent and control pollutants from these sources including spill prevention and response. The Contractor shall submit such plans and documentation as specified herein to the Engineer and, upon review and approval, they shall immediately become a component of the project's SWPPP and subject to all corresponding requirements contained therein.~~

~~The Contractor shall ensure that the SWPPP is kept on the project site at all times in accordance with the provisions of Section 105.10 and shall be available for review upon request.~~

b. ~~Changes and Deficiencies~~

The Contractor shall report to the Engineer when any planned physical alterations or additions are made to the land disturbing activity or deficiencies in the project plans or ~~contract~~*Contract* documents are discovered that could significantly change the nature or increase the quantity of the pollutants discharged from the land disturbing activity to surface waters.

~~e~~*b*. Revisions to the SWPPP

~~Where site conditions or, construction sequencing or scheduling necessitates revisions or modifications to the erosion and sediment control plan or other any other component of the SWPPP for the land disturbing activity, such revisions or modifications shall be approved by the Engineer and shall be documented by the Contractor on a designated plan set (Record Set). Such plans shall be kept on the project site at all times and shall be available for review upon request.~~

Such plans shall be maintained on the project site or at a location convenient to the project site where no on site facilities are available and shall be available for review upon request during normal business working hours.

6. Other Permit Requirements

- a. The Contractor shall apply permanent or temporary soil stabilization to denuded areas within seven days after final grade is reached on any portion of the site. The Contractor shall apply nutrients in accordance with the manufacturer's recommendations and they shall not be applied during rainfall events. There shall be no discharges of floating solids or visible foam in other than trace amounts. The Contractor shall control the volume and velocity of stormwater runoff within the site to minimize soil erosion. The Contractor shall control stormwater discharges, including both peak flow rates and total stormwater volume to minimize erosion at outlets and to minimize downstream channel and stream bank erosion.*
- b. The Contractor shall minimize the amount of soil exposed during construction activity as well as the disturbance of steep slopes. The Contractor shall minimize sediment discharges from the site in a manner that addresses the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff and soil characteristics, including the range of soil particle sizes expected to be present on the site. The Contractor shall provide and maintain natural buffers around surface waters. The Contractor shall direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible. The Contractor shall preserve topsoil and minimize soil compaction where feasible. The Contractor shall begin stabilization immediately upon installation of earthen structures such as dams, dikes, and diversions. The Contractor shall stabilize denuded areas immediately upon reaching final grade and areas that may not be at final grade but shall remain dormant for longer than 14 days. The Contractor shall install temporary stabilization within seven days of initiation.*
- c. The Contractor shall identify potential pollutant-generating activities and the pollutant that is expected to be exposed to stormwater for on-site and off-site activities, including support activities. The Contractor shall also identify the locations where potential pollutant-generating activities shall occur (e.g., areas where equipment and vehicle washing, wheel wash water, and other wash water is to occur; storage areas for chemicals such as acids, fuels, fertilizers and other lawn care chemicals, concrete wash-out areas, vehicle fueling and maintenance areas, sanitary waste facilities, including those temporarily placed on the construction site, and construction waste storage).*
- d. The Contractor shall identify the location of the on-site rain gauge used to identify a measurable storm event for inspection purposes. All non-stormwater discharges that are or will be commingled with stormwater discharges from the construction activity at the site. Non-stormwater discharges include:*

Discharges from fire fighting activities;

Fire hydrant flushings;

Waters used to wash vehicles where detergents have not been used and the wash water has been treated;

Water used to control dust that has been filtered, settled or similarly treated prior to discharge;

Potable water sources, including uncontaminated waterline flushings;

Routine external building wash down which does not use detergents, solvents or other wash chemicals and that have been filtered, settled or similarly treated prior to discharge;

Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (or where all spilled material has been removed) and where detergents, solvents, or other wash chemicals are not used that have been filtered, settled or similarly treated prior to discharge;

Uncontaminated air conditioning or compressor condensate;

Uncontaminated ground water or spring water;

Foundation or footing drains where flows are not contaminated with process materials such as solvents;

Uncontaminated excavation dewatering, including dewatering of trenches and excavations that have been filtered, settled or similarly treated prior to discharge; and

Landscape irrigation.

- e. The Contractor shall identify the person responsible for the pollution prevention activities for each pollutant-generating activity (if other than the person listed as the qualified personnel). The Contractor shall identify the procedures and practices that will be implemented to prevent and respond to leaks, spills and other releases, including procedures for expeditiously stopping, containing and cleaning up spills, leaks and other releases and procedures for reporting leaks, spills and other releases.*
- f. The Contractor shall implement and identify procedures and practices that will eliminate the discharge of spilled and leaked fuels and chemicals from vehicle fueling and maintenance activities (e.g., providing secondary containment such as spill berms, decks, spill containment pallets, providing cover where appropriate, and having spill kits readily available).*
- g. The Contractor shall implement and identify procedures and practices that will prevent the discharge of soaps, detergents, solvents and wash water from construction materials, such as clean up of stucco, paint form release oils, and curing compounds (e.g., providing cover, plastic sheeting or temporary roofs to prevent contact with stormwater, collecting and properly disposing of in a manner to prevent contact with stormwater and other similarly effective means designed to prevent discharge of these pollutants).*
- h. The Contractor shall implement and identify procedures and practices that will minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water and other types of washing (e.g., locating activities away from surface waters and stormwater inlets or conveyances and directing wash waters to*

sediment basins or traps, using filtration devices such as filter bags or sand filters or using similarly effective controls).

- i. The Contractor shall direct Concrete wash water into a leak-proof container or leak-proof settling basin that is designed so that no overflows can occur due to inadequate sizing or precipitation. The Contractor shall remove hardened concrete wastes and dispose of in a manner consistent with the handling of other construction wastes. The Contractor shall remove liquid concrete wastes and dispose of in a manner consistent with the handling of other construction wash waters and shall not be discharged to surface waters.*
- j. The Contractor shall identify procedures and practices that will be implemented to prevent the discharge of pollutants from storage, handling and disposal of construction products, materials and wastes including building products such as asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures, pesticides, herbicides, insecticides, fertilizers and landscape materials and construction and domestic wastes such as packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete and other trash or building materials. The Contractor shall identify procedures and practices that will be implemented to prevent the discharge of fuels, oils and other petroleum products, hazardous or toxic wastes and sanitary wastes. The Contractor shall identify procedures and practices that will be implemented to prevent any other discharges from potential pollutant generating activity not otherwise addressed elsewhere. The Contractor shall identify procedures that will be implemented to provide pollution prevention awareness of all applicable wastes, including any wash water, disposal practices and applicable disposal locations of such wastes, to appropriate contractor personnel.*
- k. The Contractor shall amend the SWPPP whenever there is a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants to surface waters and that has not been previously addressed in the SWPPP. The Contractor must amend the SWPPP if, during inspections or investigations by the qualified personnel, or by local, state, or federal officials, it is determined that the existing control measures are ineffective in minimizing pollutants in discharges from the construction site. Revisions to the SWPPP shall include additional or modified control measures designed and implemented to correct problems identified. The Department's duly authorized representative will sign and date the revisions to the SWPPP.*
- l. The SWPPP must clearly identify the contractor(s) that will implement and maintain each control measure identified in the SWPPP. The SWPPP shall be revised to identify any new contractor that will implement and maintain a control measure. (Note: For VDOT this would be the prime contractor) The Contractor shall update the SWPPP no later than seven days following any modifications to its implementation. The Contractor shall note all modifications or changes to the SWPPP. Updates and modifications shall be signed and dated by the Department's duly authorized representative and shall include:*

A record of dates when major grading activities occur, construction activities temporarily or permanently cease on a portion of the site and stabilization measures are initiated;

Documentation of replaced or modified controls where periodic inspections or other information have indicated that the controls have been used inappropriately or incorrectly;

Areas that have reached final stabilization and where no further SWPPP or inspection requirements apply;

The date of any prohibited discharges, the discharge volume released, and what actions were taken to minimize the impact of the release;

Measures taken to prevent the reoccurrence of any prohibited discharge;

Measures taken to address any deficiencies identified as a result of an inspection.

- m. The Contractor shall implement the requirements of the SWPPP and subsequent updates from commencement of construction activity until permit termination.*
- o. The Contractor must properly maintain all control measures in effective operating condition in accordance with good engineering practices and, where applicable, manufacturer specifications. If site inspections identify control measures that are not operating effectively, the Contractor shall perform corrective action as soon as practicable, but no later than seven days after discovery, to maintain the continued effectiveness of stormwater controls.*
- p. If site inspections identify existing control measures that need to be modified or if additional control measures are necessary for any reason, the Contractor shall implement them prior to the next anticipated storm event. If implementation prior to the next anticipated storm even is impracticable, then the Contractor shall document the situation in the SWPPP and implement alternative control measures as soon as practicable, but no later than seven days after discovery.*

107.17—Construction Safety and Health Standards

~~Compliance with construction~~ *(a) In the performance of this Contract the Contractor shall comply with all applicable Federal, State, and local laws governing safety and health standards, and sanitation (23 CFR 635). The Contractor, subcontractors at any tier, and their respective employees, agents and invitees, shall at all times while in or around the project site comply with all applicable laws, regulations, provisions, and policies governing safety and health under the Virginia Occupational Safety and Health (VOSH) Standards adopted under the Code of Virginia, and any laws, regulations, provisions and policies incorporated by reference including but not limited to the Federal Construction Safety Act (Public Law 91-54), 29 CFR Chapter XVII, Part 1926, Occupational Safety and Health Regulations for Construction, and the Occupation Safety and Health Act (Public Law 91-596), 29 CFR Chapter XVII, Part 1910 Occupational Safety and Health Standards for General Industry, and subsequent publications updating these regulations.*

- (b) The Contractor shall provide all safeguards, safety devices and protective equipment, and take any other needed actions as it determines, or as the Engineer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public, and to protect property in connection with the performance of the Work. The Contractor shall be responsible for maintaining and supervising all safety and health protections and programs to ensure compliance with this Section. The Contractor shall*

routinely inspect the project site for safety and health violations. The Contractor shall immediately abate any violations of the safety and health requirements or duties at no cost to the Department.

- (c) ~~It is a condition of the~~*this* Contract, and shall be made a condition of each subcontract entered, ~~which the Contractor enters~~ into pursuant to ~~the~~*this* Contract, that the Contractor and any subcontractor shall not ~~require~~*permit* any ~~worker-employed~~*employees*, in performance of the Contract, to work in surroundings or under ~~working~~ conditions ~~that~~*which* are unsanitary, hazardous, or dangerous to their health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the U.S. Secretary of Labor, in accordance with ~~the requirements of~~ Section 107 of the Contract Work Hours and Safety Standards Act. ~~(40 U.S.C. 3704).~~

~~The Contractor shall comply with the Virginia Occupational Safety and Health Standards adopted under the Code of Virginia and the duties imposed under the Code. Any violation of the requirements or duties that is brought to the attention of the Contractor by the Engineer or any other person shall be immediately abated.~~

~~At a minimum, all Contractor personnel shall comply with the following, unless otherwise determined unsafe or inappropriate in accordance with OSHA regulations:~~

- ~~1. Hard hats shall be worn while participating in or observing all types of field work when outside of a building or outside of the cab of a vehicle, and exposed to, participating in or supervising construction.~~
- ~~2. Respiratory protective equipment shall be worn whenever an individual is exposed to any item listed in the OSHA Standards as needing such protection unless it is shown that the employee is protected by engineering controls.~~
- ~~3. Adequate eye protection shall be worn in the proximity of grinding, breaking of rock and/or concrete, while using brush chippers, striking metal against metal or when working in situations where the eyesight may be in jeopardy.~~
- ~~4. A safety vest shall be worn by all exposed to vehicular traffic and construction equipment.~~
- ~~5. Standards and guidelines of the current Virginia Work Area Protection Manual shall be used when setting, reviewing, maintaining, and removing traffic controls.~~
- ~~6. Flaggers shall be certified in accordance with the Virginia Flagger Certification Program.~~
- ~~7. No person shall be permitted to position themselves under any raised load or between hinge points of equipment without first taking steps to support the load by the placing of a safety bar or blocking.~~
- ~~8. Explosives shall be purchased, transported, stored, used and disposed of by a Virginia State Certified Blaster in possession of a current criminal history record check and a commercial driver's license with hazardous materials endorsement and a valid medical examiner's certificate. All Federal, State and local regulations pertaining to explosives shall be strictly followed.~~
- ~~9. All electrical tools shall be adequately grounded or double insulated. Ground Fault Circuit Interrupter (GFCI) protection must be installed in accordance with the National Electrical Code (NEC) and current Virginia Occupational Safety and Health agency (VOSH). If extension cords are used, they shall be free of defects and designed for their environment and intended use.~~

~~10. No person shall enter a confined space without training, permits and authorization.~~

~~11. Fall protection shall be required whenever an employee is exposed to a fall six feet or greater~~

(d) VOSH personnel, on all Federal-aid construction contracts and related subcontracts, pursuant to 29 CFR 1926.3, the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out their duties.

107.18—Sanitary Provisions

The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of employees as may be necessary to comply with the requirements of the state and local Board of Health or other bodies or tribunals having jurisdiction.

107.19—Railway-Highway Provisions

If the Contractor's work requires hauling materials across the tracks of a railway, he shall make arrangements with the railway for any new crossing(s) required. Access to existing rail crossings with off-road heavy equipment shall also be arranged by the Contractor. Charges made by the railway company for the construction or use of new or existing crossings and their subsequent removal and for watchperson or flagger service at such crossings shall be reimbursed by the Contractor directly to the railway company under the terms of their separate individual arrangements before final acceptance.

Work to be performed by the Contractor in construction on or over the railway right of way shall be performed at times and in a manner that will not unnecessarily interfere with the movement of trains or traffic on the railway track. The Contractor shall use care to avoid accidents, damage, or unnecessary delay or interference with the railway company's trains or other property. If any interruption of railway traffic is required by the Contractor's actions, he shall obtain prior written approval from the railway company.

The Contractor shall conduct operations that occur on or over the right of way of any railway company fully within the rules, regulations, and requirements of the railway company and in accordance with the requirements of any agreements made between the Department and the railway company that are a part of the Contract. Said agreements are included within the Contract Documents.

- (a) **Flagger or Watchperson Services:** Flagger or watchperson services required by the railway company for the safety of railroad operations because of work being performed by the Contractor or incidental thereto will be provided by the railway company. The cost for such services as required for work shown on the plans will be borne by the Department. Any cost of such services resulting from work not shown on the plans or for the Contractor's convenience shall be borne by the Contractor and shall be paid directly to the railway company(s) under the terms of their separate individual agreement.

No work shall be undertaken on or over the railway right of way until the watchpersons or flaggers are present at the project site. The Contractor shall continuously prosecute the affected work to completion to minimize the need for flagger or watchperson services. Costs for such services that the Engineer determines to be unnecessary because of the Contractor's failure to give notice as required herein before initially starting, intermittently

continuing, or discontinuing work on or over the railway right of way shall be borne by the Contractor and will be deducted from monies due him.

- (b) **Approval of Construction Methods on Railway Right of Way:** The Contractor shall submit to the Department a plan of operations showing the design and method of proposed structural operations and shall obtain its approval before performing any work on the railway company's right of way unless otherwise indicated in the railroad agreement. The plan shall be clear and legible, and details shall be drawn to scale. The plan shall incorporate any stipulations or requirements the railroad may impose for the evaluation of the Contractor's contemplated operations. The plan shall show, but not be limited to, the following:

1. proximity of construction operations to tracks
2. depth of excavation with respect to tracks
3. description of structural units
4. vertical and horizontal clearances to be afforded the railroad during installation and upon completion of excavation
5. sheeting and bracing
6. method and sequence of operations

Approval shall not relieve the Contractor of any liability under the Contract. The Contractor shall arrange the work so as not to interfere with the railway company's operation except by agreement with the railway company.

- (c) **Insurance:** In addition to insurance or bonds required under the terms of the Contract, the Contractor shall carry insurance covering operations affecting the property of the railway company. The original railroad protective liability insurance policy and certificate of insurance showing insurance carried by the Contractor and any subcontractors shall be submitted to the railway company for approval and retention.

Neither the Contractor nor any subcontractor shall begin any work affecting the railway company until the railway company has received the insurance.

Notice of any material change in or cancellation of the required policies shall be furnished the Department and the railway company at least 30 days prior to the effective date of the change or cancellation. The insurance shall be of the following kinds and amounts:

1. **Contractor's public liability and property damage insurance:** The Contractor shall furnish evidence to the Department with respect to the operations to be performed that he carries regular contractor's public liability insurance. The insurance shall provide for a limit of at least the dollar value specified in the Contract for all damages arising out of bodily injuries to or the death of one person, and subject to that limit for each person, a total limit of at least the dollar value specified in the Contract for all damages arising out of bodily injuries to or death of two or more persons in any one occurrence, and regular contractor's property damage insurance providing for a limit of at least the dollar value specified in the Contract for all damages arising out of bodily injury to or destruction of property in any one occurrence, and subject to that limit per occurrence, a total or aggregate limit of at least the dollar value specified in the Contract for all damages arising out of injury to or destruction of property during the policy period.

The Contractor's public liability and property damage insurance shall include explosion, collapse, and underground damage coverage. If the Contractor subcontracts any portion of the work, he shall secure insurance protection in his own behalf under the Contract's public liability and property damage insurance policies to cover any liability imposed on him by law for damages because of bodily injury to, or death of persons and injury to, or destruction of property as a result of work undertaken by the subcontractors. In addition, the Contractor shall provide similar insurance protection for and on behalf of any subcontractors to cover their operation by means of separate and individual contractor's public liability and property damage policies. As an alternative, he shall require each subcontractor to provide such insurance in his own behalf.

2. **Railroad protective insurance and public liability and property damage:** The policy furnished the railway company shall include coverage for contamination, pollution, explosion, collapse, and underground damage. The policy shall be of the type specified hereinafter and shall be expressed in standard language that may not be amended. No part shall be omitted except as indicated hereinafter or by an endorsement that states an amendment or exclusion of some provision of the form in accordance with the provisions of a manual rule. The form of the endorsement shall be approved as may be required by the supervising authority of the state in which the policy is issued. A facsimile of the Policy Declarations form as shown in the proposal shall be made a part of the policy and shall be executed by an officer of the insurance company. The several parts of the requirements and stipulations specified or inferred herein may appear in the policy in such sequence as the company may elect.

a. **For a policy issued by one company:**

(NAME AND LOCATION OF INDEMNITY COMPANY), a

(Type of Company) Insurance

Company, herein called the

~~—(Type of Company)~~

Company, agrees with the insured named in the Policy Declarations made a part hereof, in consideration of the payment of the premium and in reliance upon the statements in the Policy Declarations made by the named insured and subject to all of the terms of his policy.

For a policy issued by two companies:

(NAME AND LOCATION OF INDEMNITY COMPANY)

and—(NAME AND LOCATION OF INDEMNITY COMPANY),—each a

Insurance Company; (Type of

Company), herein called the

~~—(Type of Company)~~

Company, severally agree with the insured named in the Policy Declarations made a part hereof, in consideration of the payment of the premium and in reliance upon the statements in the Policy Declaration made by the named insured and subject to all of the terms of this policy, provided the named Indemnity Company shall be the insured with respect to Coverage _____ and no other and the named Insurance Company shall be the insurer with respect to Coverage _____ and no other.

b. **Insuring agreements:**

- (1) **Coverages: Coverage A—Bodily injury liability:** To pay on behalf of the insured all sums that the insured shall become legally obligated to pay as damages because of bodily injury, sickness, or disease including death at any time resulting therefrom (hereinafter called bodily injury) either (1) sustained by any person arising out of acts or omissions at the designated job site that are related to or are in connection with the work described in Item 6 of the Policy Declarations; or (2) sustained at the designated job site by the Contractor, any employee of the Contractor, any employee of the governmental authority specified in Item 5 of the Policy Declarations, or any designated employee of the insured, whether or not arising out of such acts or omissions.

Coverage B—Property damage liability: To pay on behalf of the insured all sums the insured shall become legally obligated to pay as damages because of physical injury to or destruction of property, including loss of use of any property because of such injury or destruction (hereinafter called property damage) arising out of acts or omissions at the designated job site that are related to or are in connection with the work described in Item 6 of the Policy Declarations.

Coverage C—Physical damage to property: To pay for direct and accidental loss of or damage to rolling stock and other contents, mechanical construction equipment, or motive power equipment (hereinafter called loss) arising out of acts or omissions at the designated job site that are related to or are in connection with the work described in Item 6 of the Policy Declarations; provided such property is owned by the named insured or is leased or entrusted to the named insured under a lease or trust agreement.

(2) **Definitions:**

Insured means and includes the named insured and any executive officer, director, or stockholder thereof while acting within the scope of his duties as such.

Contractor means the Contractor designated in Item 4 of the Policy Declarations and includes all subcontractors of the Contractor but not the named insured.

Designated employee of the insured means (1) any supervisory employee of the insured at the job site; (2) any employee of the insured while operating, attached to, or engaged on work trains or other railroad equipment at the job site that is assigned exclusively to the Contractor; or (3) any employee of the insured not within (1) or (2) who is specifically loaned or assigned to the work of the Contractor for prevention of accidents or protection of property, the cost of whose services is borne specifically by the Contractor or governmental authority.

Contract means any contract or agreement to carry a person or property for a consideration or any lease, trust, or interchange contract or agreement respecting motive power, rolling stock, or mechanical construction equipment.

- (3) **Defense and settlement supplementary payments:** With respect to such insurance as is afforded by this policy under Coverages A and B, the

Company shall defend any suit against the insured alleging such bodily injury or property damage and seeking damages that are payable under the terms of this policy, even if any of the allegations of the suit are groundless, false, or fraudulent. However, the Company may make such investigation and settlement of any claim or suit as it deems expedient.

In addition to the applicable limits of liability, the Company shall pay (1) all expenses incurred by the company, all costs taxed against the insured in any such suit, and all interest on the entire amount of any judgment therein that accrues after entry of the judgment and before the Company has paid or tendered or deposited in court that part of the judgment that does not exceed the limit of the Company's liability thereon; (2) premiums on appeal bonds required in any such suit and premiums on bonds to release attachments for an amount not in excess of the applicable limit of liability of this policy, but without obligation to apply for or furnish any such bonds; (3) expenses incurred by the insured for first aid to others that shall be imperative at the time of the occurrence; and (4) all reasonable expenses, other than loss of earnings, incurred by the insured at the Company's request.

- (4) **Policy period and territory:** This policy applies only to occurrences and losses during the policy period and within the United States, its territories or possessions, or Canada.

c. **Exclusions:** This policy does not apply to the following:

- (1) liability assumed by the insured under any contract or agreement except a contract as defined herein
- (2) bodily injury or property damage caused intentionally by or at the direction of the insured
- (3) bodily injury, property damage, or loss that occurs after notification to the named insured of the acceptance of the work by the governmental authority, other than bodily injury, property damage, or loss resulting from the existence or removal of tools, uninstalled equipment, and abandoned or unused materials
- (4) under Coverage A(1), B, and C, to bodily injury, property damage, or loss, the sole proximate cause of which is an act or omission of any insured
- (5) under Coverage A, to any obligation for which the insured or any carrier as his insurer may be held liable under any workers' compensation, employment compensation, or disability benefits law or under any similar law; provided that the Federal Employer's Liability Act, U.S. Code (1946) Title 45, Sections 51-60, as amended, shall for the purpose of this insurance be deemed not to be any similar law
- (6) under Coverage B, to injury to or destruction of property owned by the named insured or leased or entrusted to the named insured under a lease or trust agreement
- (7) under any liability coverage, to injury, sickness, disease, death, or destruction (1) with respect to which an insured under the policy is also an insured under a nuclear energy liability policy issued by the Nuclear Energy

Liability Insurance Association, Mutual Atomic Energy Liability Underwriters, or Nuclear Insurance Association of Canada or would be an insured under any such policy but for its termination upon exhaustion of its limit of liability; or (2) resulting from the hazardous properties of nuclear material and with respect to which any person or organization is required to maintain financial protection pursuant to the Atomic Energy Act of 1954 or any law amendatory thereof or the insured is (or had this policy not been issued would be) entitled to indemnity from the United States or any agency thereof under any agreement entered into by the United States, or any agency thereof, with any person or organization

- (8) under any Medical Payments Coverage or any Supplementary Payments provision relating to immediate medical or surgical relief or to expenses incurred with respect to bodily injury, sickness, disease, or death resulting from the hazardous properties of nuclear material and arising out of the operation of a nuclear facility by any person or organization
- (9) under any liability coverage, to injury, sickness, disease, death, or destruction resulting from the hazardous properties of nuclear material if (1) the nuclear material is at any nuclear facility owned or operated by or on behalf of an insured or has been discharged or dispersed therefrom; (2) the nuclear material is contained in spent fuel or waste at any time possessed, handled, used, processed, stored, transported, or disposed of by or on behalf of an insured; or (3) the injury, sickness, disease, death, or destruction arises out of the furnishing by an insured of services, materials, or parts for equipment in connection with the planning, construction, maintenance, operation, or use of any nuclear facility; if such facility is located in the United States, its territories or possessions, or Canada, this exclusion applies only to injury to or destruction of property at such nuclear facility
- (10) under Coverage C, to loss attributable to nuclear reaction, nuclear radiation, or radioactive contamination or to any act or condition incident to any of the foregoing

(11) As used in exclusions (7), (8), and (9), the following definitions apply:
~~Hazardous properties include radioactive, toxic, or explosive properties. Nuclear material means source material, special nuclear material, or byproduct material. Source material, special nuclear material, and byproduct material have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof. Spent fuel means any fuel element or fuel component (solid or liquid) that has been used or exposed to radiation in a nuclear reaction.~~

Disposable material means material containing ~~byproduct~~ *product* material and resulting from the operation by any person or organization of any nuclear facility included in the definition of nuclear facility under 4(i) or 2(ii) below. ~~Nuclear facility means:~~

~~(1) Hazardous properties include radioactive, toxic, or explosive properties.~~

Injury or destruction with respect to injury to or destruction of property, includes all forms of radioactive contamination of property.

Nuclear facility means:

- a) any nuclear reactor
- ~~(2b)~~ any equipment or device designed or used for separating the isotopes of uranium or plutonium; processing or utilizing spent fuel; or handling, processing, or packaging waste
- ~~(3c)~~ any equipment or device designed or used for the processing, fabricating, or alloying of special nuclear material if at any time the total amount of such material in the custody of the insured at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 (or any combination thereof) or more than 250 grams of uranium 235
- ~~(4d)~~ any structure, basin, excavation, premises, or place prepared or used for the storage or disposal of waste (includes the site on which any of the foregoing is located, all operation conducted on such site, and all premises used for such operations)

Nuclear material means source material, special nuclear material, or byproduct material.

Nuclear reactor means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material. ~~With respect to injury to or destruction of property, injury or destruction includes all forms of radioactive contamination of property.~~

Source material, special nuclear material, and byproduct material have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof.

Spent fuel means any fuel element or fuel component (solid or liquid) that has been used or exposed to radiation in a nuclear reaction.

- d. **Conditions:** The following conditions, except conditions (3) through (12), apply to all coverages. Conditions (3) through (12) apply only to the coverage noted thereunder.

- (1) **Premium:** The premium bases and rates for the hazards described in the Policy Declarations are stated therein. Premium bases and rates for hazards not so described are those applicable in accordance with the requirements of the manuals used by the company. The term "contract cost" means the total cost of all work described in Item 6 of the Policy Declaration. The term "rental cost" means the total cost to the Contractor for rental or work trains or other railroad equipment, including the remuneration of all employees of the insured while operating, attached to, or engaged thereon. The advance premium stated in the Policy Declarations is an estimated premium only. Upon termination of this policy, the earned premium shall be computed in accordance with the Company's rules, rates, rating plans, premiums, and minimum premiums applicable to this insurance. If the earned premium thus computed exceeds the estimated advance premium paid, the Company shall look to the Contractor specified in the Policy Declarations for any such excess. If the earned premium is less than the estimated advance premium

paid, the Company shall return to the Contractor the unearned portion paid. In no event shall payment or premium be an obligation of the named insured.

- (2) **Inspection:** The named insured shall make available to the Company records of information relating to the subject matter of this insurance. The Company shall be permitted to inspect all operations in connection with the work described in Item 6 of the Policy Declarations.
- (3) **Limits of liability, Coverage A:** The limit of bodily injury liability stated in the Policy Declarations as applicable to "each person" is the limit of the Company's liability for all damages (including damages for care and loss of services) arising out of bodily injury sustained by one person as the result of any one occurrence. The limit of such liability stated in the Policy Declarations as applicable to "each occurrence" is (subject to the provision respecting each person) the total limit of the Company's liability for all such damage arising out of bodily injury sustained by two or more persons as the result of any one occurrence.
- (4) **Limits of liability, Coverages B and C:** The limit of liability under Coverages B and C stated in the Policy Declarations as applicable to "each occurrence" is the total limit of the Company's liability for all damages and all loss under Coverages B and C combined arising out of physical injury to, destruction of, or loss of all property of one or more persons or organizations, including the loss or use of any property attributable to such injury or destruction under Coverage B, as the result of any one occurrence. Subject to the provision respecting "each occurrence", the limit of liability under Coverages B and C stated in the Policy Declaration as "aggregate" is the total limit of the Company's liability for all damages and all loss under Coverages B and C combined arising out of physical injury to, destruction of, or loss of property, including the loss or use of any property attributable to such injury or destruction under Coverage B.

Under Coverage C, the limit of the Company's liability for loss shall not exceed the actual cash value of the property, or if the loss is a part thereof, the actual cash value of such part, at time of loss, nor what it would then cost to repair or replace the property of such part thereof with other of like kind and quality.
- (5) **Severability of interests, Coverages A and B:** The term the insured is used severally and not collectively. However, inclusion herein of more than one insured shall not operate to increase the limits of the Company's liability.
- (6) **Notice:** In the event of an occurrence or loss, written notice containing particulars sufficient to identify the insured and also reasonably obtainable information with respect to the time, place, and circumstances thereof and the names and addresses of the injured and of able witnesses shall be given by or for the insured to the company or any of its authorized agents as soon as is practicable. If a claim is made or a suit is brought against the insured, he shall immediately forward to the Company every demand, notice, summons, or other process received by him or his representative.
- (7) **Assistance and cooperation of the insured, Coverages A and B:** The insured shall cooperate with the Company and upon the Company's request attend hearings and trials and assist in making settlements, securing and

giving evidence, obtaining the attendance of witnesses, and conducting suits. Except at his own cost, the insured shall not voluntarily make any payment, assume any obligations, or incur any expense other than for first aid to others that shall be imperative at the time of an accident.

- (8) **Action against Company, Coverages A and B:** No action shall lie against the Company unless as a condition precedent thereto the insured shall have fully complied with all the terms of this policy, nor until the amount of the insured's obligation to pay shall have been finally determined either by judgment against the insured after actual trial or by written agreement of the insured, the claimant, and the Company. Any person or organization or the legal representative thereof who has secured such judgment or written agreement shall thereafter be entitled to recover under this policy to the extent of the insurance afforded by this policy. No person or organization shall have any right under this policy to join the Company as a part to any action against the insured to determine the insured's liability. Bankruptcy or insolvency of the insured or of the insured's estate shall not relieve the Company of any of its obligations hereunder.
- (9) **Action against Company, Coverage C:** No action shall lie against the Company unless as a condition precedent thereto there shall have been full compliance with all the terms of this policy nor until 30 days after proof of loss is filed and the amount of loss is determined as provided in this policy.
- (10) **Insured's duties in event of loss, Coverage C:** In the event of loss, the insured shall protect the property, whether or not the loss is covered by this policy. Any further loss attributable to the insured's failure to protect shall not be recoverable under this policy. Reasonable expenses incurred in affording such protection shall be deemed incurred at the company's request.
- The insured shall also file with the Company, as soon as practicable after loss, his sworn proof of loss in such form and including such information as the Company may reasonably require and shall, upon the Company's request, exhibit the damaged property.
- (11) **Appraisal, Coverage C:** If the insured and the Company fail to agree as to the amount of loss, either may demand an appraisal of the loss within 60 days after the proof of loss is filed. In such event the insured and the Company shall each select a competent appraiser, and the appraisers shall select a competent and disinterested umpire. An award in writing or any two shall determine the amount of loss. The insured and the Company shall each pay his chosen appraiser and shall bear equally the other expenses of the appraisal and umpire. The Company shall not be held to have waived any of its rights by any act relating to appraisal.
- (12) **Payment of loss, Coverage C:** The Company may pay for the loss in money, but there shall be no abandonment of the damaged property to the Company.
- (13) **No benefit to bailee coverage:** The insurance afforded by this policy shall not enure directly or indirectly to the benefit of any carrier or bailee (other than the named insured) liable for loss to the property.

- (14) **Subrogation:** In the event of any payment under this policy, the Company shall be subrogated to all of the insured's rights of recovery therefor against any person or organization. The insured shall execute and deliver instruments and papers and do whatever else is necessary to secure such rights. The insured shall do nothing after loss to prejudice such rights.
- (15) **Application of insurance:** The insurance afforded by this policy is primary insurance. If the insured has other primary insurance against a loss covered by this policy, the Company shall not be liable under the policy for a greater proportion of such loss than the applicable limit of liability stated in the Contract bears to the total applicable limit of all valid and equitable insurance against such loss.
- (16) **3-year policy:** A policy period of 3 years is comprised of three consecutive annual periods. Computation and adjustment of earned premium shall be made at the end of each annual period. Aggregate limits of liability as stated in this policy shall apply separately to each annual period.
- (17) **Changes:** Notice to any agent of knowledge possessed by any agent or by any other person shall not affect a waiver or a change in any part of this policy or stop the Company from asserting any right under the terms except by endorsement issued to form a part of this policy signed by *_____ provided, however, changes may be made in the written portion of the Policy Declaration by *_____ when initialed by such *_____ or by endorsement issued to form a part of this policy signed by such *_____. [*Insert titles of authorized company representatives.]
- (18) **Assignment:** Assignment of interest under this policy shall not bind the Company until its consent is endorsed hereon.
- (19) **Cancellation:** This policy may be cancelled by the named insured by mailing to the Company written notice stating when the cancellation shall become effective. This policy may be cancelled by the Company by mailing to the named insured, Contractor, and governmental authority at the respective addresses shown in this policy written notice stating when such cancellation shall be effective (not less than 30 days thereafter). The mailing of notice shall be sufficient proof of notice. The effective date and hour of cancellation stated in the notice shall become the end of the policy period. Delivery of such written notice either by the named insured or the Company shall be equivalent to mailing. If the named insured cancels, the earned premium shall be computed in accordance with the customary short rate table and procedure. If the Company cancels, the earned premium shall be computed pro rata. The premium may be adjusted either at the time cancellation is effected or as soon as practicable after the cancellation becomes effective, but payment or tender of unearned premium is not a condition of cancellation.
- (20) **Policy Declarations:** By acceptance of this policy, the named insured agrees that such statements in the Policy Declarations as are made by him are his agreements and representations, that his policy is issued in reliance on the truth of such representations, and that this policy embodies all agreements existing between himself and the Company or any of its agents relating to this insurance.

e. **For a policy issued by one company:**

In witness whereof, the _____ Indemnity Company has caused this policy to be signed by its president and a secretary at _____ and countersigned on the Policy Declarations page by a duly authorized agent of the Company.

(Facsimile of Signature)
Secretary

(Facsimile of Signature)
President

For a policy issued by two companies:

In witness whereof, the _____ Indemnity Company has caused this policy with respect to Coverages _____ and such other parts of the policy as are applicable thereto to be signed by its president and a secretary at _____ and countersigned on the Policy Declarations page by a duly authorized agent of the Company.

(Facsimile of Signature)
Secretary

(Facsimile of Signature)
President

- (d) **Submitting Copies of Insurance Policies:** Prior to beginning construction operations on or over the railway right of way, the Contractor shall submit to the Department evidence of the railway company's approval and a copy of the required insurance policies. The Commonwealth will not be responsible for any claims from the Contractor resulting from delay in the acceptance of any of these policies by the railway company other than consideration of an extension of time. If the delay is caused by the failure of the Contractor or his insurer to file the required insurance policies promptly, an extension of time will not be granted.
- (e) **Beginning Construction:** Preliminary contingent work or other work by the railway company may delay the starting or continuous prosecution of the work by the Contractor. The Contractor shall be satisfied as to the probable extent of such work and its effect on the operations prior to submitting a bid for the work. The Commonwealth will not be responsible for any claims by the Contractor resulting from such delays except that an extension of time may be considered.
- (f) **Arranging for Tests:**
1. **Railroad specifications:** When ordering materials that are to conform to railroad specifications, the Contractor shall notify the railway company, who will arrange for tests. The Contractor shall specify in each order that the materials are to be tested in accordance with the requirements of the railroad specifications and not those of the Department.
 2. **Highway Specifications:-** When ordering materials that are to conform to highway Specifications, the Contractor shall specify in each order that the materials are to be tested in accordance with the requirements of Department Specifications.

107.20—Construction Over or Adjacent to Navigable Waters

The Department will obtain a permit from the U.S. Coast Guard for the anticipated construction and/or demolition activities of structures on Department projects that cross a waterway(s) under the jurisdiction of the U.S. Coast Guard. As the permit holder, the Department must apply to the U.S. Coast Guard for approval of permit modifications to the original Department permit that the Contractor requests.

Prior to starting demolition or construction operations the Contractor shall meet with the Engineer and the U.S. Coast Guard (U.S. Coast Guard Coordination Meeting) to present its planned operations and the potential impacts those operations may pose to water traffic. As part of this meeting, the parties shall establish in writing the proper protocol for emergency closures and be governed accordingly.

- (a) **Activities subject to Coast Guard regulation under the Permit.** Following the U.S. Coast Guard Coordination meeting, the Contractor shall submit its proposed schedule of operations in writing to the Engineer. The Engineer shall review and provide written comments, if applicable, to the Contractor within ~~7 calendar~~ days following receipt of the Contractor's schedule of operations. The Contractor shall incorporate the Engineer's comments and submit its notice of scheduled operations to the Engineer and to the U.S. Coast Guard at least 30 days prior to commencement of any permitted construction or demolition operations. U.S. Coast Guard acceptance of the Contractor's written schedule of operations is a condition precedent to the Contractor's commencement of those operations.
- (b) **Activities that require channel closures or restrictions.** In addition to the submittal of its proposed schedule of operations as described in (a) above, Contractor shall submit plans that comply with the Permit for falsework, cofferdams, floating equipment and other obstructions to the channel or channels to the Engineer. The Contractor's attention is directed to the possibility that advance notification for consideration of approval may vary depending on the type and duration of proposed closures, the time of year for requested closure(s), and location of existing bridge(s) and waterway(s) involved, and the impact to entities served along or through the waterway(s). The Engineer shall review and provide written comments, if applicable, to the Contractor within ~~thirty (30) calendar~~ days following receipt of the Contractor's plans. The Contractor shall incorporate the Engineer's comments and submit its plans to the Engineer and to the U.S. Coast Guard at least 30 days prior to commencement of any permitted construction or demolition operations. The Contractor may not commence activities that require channel closures or restrictions without the prior written approval of the Department and the U.S. Coast Guard. The Contractor shall be responsible for complying with all operational requirements that the U.S. Coast Guard may place on the Contractor as conditions of approval.

In addition, the Contractor shall request and obtain Department and U.S. Coast Guard approval in writing before commencing any operations that deviate from the Contractor's schedule of operations when these operations interfere or have the potential to interfere with navigation of water traffic outside of timeframes previously approved by the Department and the U.S. Coast Guard.

Notices shall be sent to the U.S. Coast Guard, Fifth District Bridge Office (OBR), 431 Crawford Street, Portsmouth, VA 23704-5004. Payment of any penalty or fine that may be levied by the U.S. Coast Guard for Contractor violations of bridge regulations found in 33 CFR Parts ~~114~~, 115, 116, 117 and 118 shall be the responsibility of the Contractor. Further, any delay to the ~~contract~~ *Contract* as a result of actions or inaction by the Contractor relative to the requirements herein that are determined by the Department to be the fault of the Contractor will ~~not be~~ *a non-compensable and non-excusable delay.*

The cost to comply with the requirements of this provision and to provide and maintain temporary navigation lights, signals and other temporary work associated with the structure(s) under this

~~contract~~**Contract** required by the U.S. Coast Guard for the protection of navigation during construction or demolition operations shall be included in ~~the bid~~ price ~~bid~~ for other appropriate ~~pay~~ items.

107.21—Size and Weight Limitations

- (a) **Hauling or Moving Material and Equipment on Public Roads Open to Traffic:** The Contractor shall comply with legal size and weight limitations in the hauling or moving of material and equipment on public roads open to traffic unless the hauling or moving is covered by a hauling permit.
- (b) **Hauling or Moving Material and Equipment on Public Roads Not Open to Traffic:** The Contractor shall comply with legal weight limitations in the hauling or moving of material and equipment on public roads that are not open to traffic unless the hauling or moving is permitted elsewhere herein or is otherwise covered by a hauling permit. The Contractor shall be liable for damage that results from the hauling or moving of material and equipment. The hauling or moving of material and equipment on the pavement structure or across any structure during various stages of construction shall be subject to additional restrictions as specified or directed by the Engineer.
- (c) **Furnishing Items in Component Parts of Sections:** If the size or weight of fabricated or manufactured items together with that of the hauling or moving vehicle exceeds the limitations covered by hauling permit policies and other means of transportation are not available, permission will be given to furnish the items in component parts of sections with adequately designed splices or connections at appropriate points. Permission for such adjustments shall be requested in writing, and approval in writing shall be secured from the Department prior to fabrication or manufacture of the items. The request shall state the reasons for adjustment and shall be accompanied by supporting data, including working drawings where necessary.
- (d) ***Construction Loading of Structures - In the construction, reconstruction, widening, or repair of bridge, culvert, retaining wall and other similar type structures including approaches, the Contractor shall consider construction loads during the planning and prosecution of the work. If the loading capacity of these type structure(s) is not shown in the Contract documents, the Contractor is responsible for contacting the office of the appropriate district bridge engineer to obtain the loading capacity information. Construction loads include but are not limited to the weight of cranes, trucks, other heavy construction or material delivery equipment, as well as the delivery or storage of materials placed on or adjacent to the structure or parts thereof during the various stages (phases) of the work in accordance with the Contractor's proposed work plan. The Contractor shall consider the effect(s) of construction loads on the loading capacity of these type structure(s) in his sequencing of the work and operations, including phase construction. At the Engineer's request the Contractor shall be prepared to discuss or review his proposed operations with the Engineer with regard to construction loads to demonstrate he has taken such into consideration in the planning and execution of the work.***

SECTION 108—PROSECUTION AND PROGRESS OF WORK

108.01—Prosecution of Work

~~The Contractor shall begin work within 15 calendar days of the date of contract execution unless otherwise permitted by specific language in the Contract or as permitted by the provisions of Section 108.02.~~

~~Prior to beginning construction operations, the Contractor shall attend a pre construction scheduling meeting to discuss the Contractor's general plan of operations, work times, and proposed means and methods for accomplishing the work. The pre construction scheduling meeting may be held in conjunction with the pre construction conference or in a separate meeting as mutually agreed to by the Department and the Contractor.~~

The Contractor shall provide a sufficient ~~force of workers~~ *labor*, materials, equipment, and tools; and shall prosecute the ~~work~~ *Work with such means and methods, and* with such diligence as is required to attain and maintain a rate of progress necessary to ensure completion of the project *within the Contract time limit* in accordance with the plans, specifications, and other requirements of the Contract.

Once the Contractor has begun work, ~~it~~ *the Contractor* shall ~~be prosecuted~~ *prosecute the Work* continuously and to the fullest extent possible except for ~~authorized~~ *authorized or* ordered by the Engineer ~~as defined in~~ *according to* Section 108.05. If approval is given to ~~discontinue~~ *suspend* the work temporarily, the Contractor shall notify the Engineer at least 24 hours in advance of resuming operations.

~~At least once every 30 days or as specified in the contract documents, the Contractor shall meet with the Engineer to discuss his current progress relative to his Schedule of Record (SOR) and to establish the approximate date for starting each critical inspection stage during the following 30 days. The Engineer shall be advised at least 24 hours in advance of any changes in the Contractor's planned operations or critical stage work requiring inspection. For the purposes stated herein, the Schedule of Record (SOR) is defined in accordance with the provisions of Section 108.03.~~

~~Work shall be conducted in such a manner and with sufficient materials, equipment, tools, and labor as are necessary to ensure its completion in accordance with the plans and these Specifications within the time limit specified in the Contract Documents. Once the Contractor has begun work, it shall be prosecuted continuously and to the fullest extent possible except for interruptions caused by weather or delays authorized or ordered by the Engineer. If approval is given to discontinue the work temporarily, the Contractor shall notify the Engineer at least 24 hours in advance of resuming operations.~~

The Contractor shall notify the Engineer at least 24 hours in advance of any changes in the Contractor's planned operations or work requiring inspection.

108.02—Limitation of Operations

(a) General

The Contractor shall conduct the work in a manner and sequence that will ensure its expeditious completion with the least interference to traffic and shall have due regard for the location of detours and provisions for handling traffic. The Contractor shall not open any work to the prejudice or detriment of work already started. The Engineer may require the Contractor to finish a section of work before work is started on any other section.

(b) Holidays

Except as is necessary to maintain traffic, work shall not be performed on Sundays or the following holidays without the permission of the Engineer: January 1, Easter, Memorial Day, July 4, Labor Day, Thanksgiving Day, and Christmas Day.

If any of these holidays occurs on a Sunday, the following Monday shall be considered the holiday.

In addition to the Sunday or Holiday work limitations, mobile, short duration, short-term stationary, or intermediate-term stationary temporary traffic control zone (as defined in the VWAPM) lane closures on mainline lanes, shoulders, or ramps shall not be performed during the following Holiday time periods without the written permission of the Engineer. Additionally, a long-term stationary temporary traffic control zone (as defined in the VWAPM) shall not be initially put in place, adjusted, or removed during the following Holiday time periods without the written permission of the Engineer:

- ***January 1:** From Noon on the preceding day until Noon on the following day, except as indicated below for Holidays occurring on a Friday/Saturday or Sunday/Monday.*
- ***Easter:** As indicated below for Holidays occurring on a Sunday.*
- ***Memorial Day:** As indicated below for Holidays occurring on a Monday.*
- ***July 4:** From Noon on the preceding day until Noon on the following day, except as indicated below for Holidays occurring on a Friday/Saturday or Sunday/Monday.*
- ***Labor Day:** As indicated below for Holidays occurring on a Monday.*
- ***Thanksgiving Day:** From Noon on the Wednesday preceding Thanksgiving Day until Noon on the Monday following Thanksgiving Day.*
- ***Christmas Day:** From Noon on the preceding day until Noon on the following day, except as indicated below for Holidays occurring on a Friday/Saturday or Sunday/Monday.*

If the Holiday occurs on a Friday or Saturday: From Noon on the preceding Thursday to Noon on the following Monday.

If the Holiday occurs on a Sunday or Monday: From Noon on the preceding Friday to Noon on the following Tuesday.

108.03—Progress Schedule

(a) General Requirements

The Contractor shall plan *the Work* and *shall prepare and submit to the Engineer for review and acceptance, a progress schedule that represents the work on the project so as Contractor's plan to complete the work within Work according to the time limit and budget established Contract.* Upon acceptance by the contract and Engineer, the baseline progress schedule shall submit his plan to accomplish these objectives in the form of a Progress become the Schedule for the Engineer's review and acceptance. The Progress Schedule of Record (SOR), which shall be used by the Engineer all involved parties for planning, and executing the Work. The SOR shall also be used by the Department for

coordination and inspection activities, ~~and for evaluation of the Contractor's rate of progress and the effects of time-related impacts on the project~~ *and to assess progress of the Work.*

~~Prior~~*At least 7 days prior to preparing* ~~beginning the schedule~~*Work, the Contractor shall attend a Scheduling Conference with the Engineer or. At the Scheduling Conference the Contractor may request a meeting to *shall discuss any its overall plan to accomplish the Work, the detailed work plan for the initial 30 days, scheduling information and key project -specific items required for requirements or issues necessary for the preparation and* ~~submittal of the progress schedule. The Contractor shall prepare and submit a practicable schedule~~*Scheduling Conference may be held in conjunction with the Pre-Construction Conference or at a separate meeting as the Contractor and the Engineer mutually agree. If the Scheduling Conference is to reflect* ~~be held after the notice to proceed date, the Contractor may proceed with project start-up activities such as submittals, mobilization, surveying, construction access and signage, erosion and sedimentation controls, as approved by the Engineer in writing.~~*

(b) Progress Schedule Submission Requirements

Unless otherwise specified in the Contract Documents or directed in writing by the Engineer, the Contractor shall submit a logical progress of the work schedule as follows:

1. **Baseline Progress Schedule.** ~~The Contractor shall submit a baseline progress schedule at least 7 days before beginning the Work, or by a date approved by the Engineer in writing. The baseline progress schedule shall represent show the Contractor's overall work initial detailed plan to accomplish the work Work in accordance with the requirements herein and those of the Contract as detailed in the Contract documents. It shall include.~~ *The Baseline Progress Schedule submission shall be prepared and submitted according to the requirements and guidelines defined in Section IV.5.A of the VDOT Post-Award Scheduling Guide and shall include:*

- a. A baseline bar-chart or CPM schedule showing in detail the Contractor's intended sequence of work and the dates during which all time activities required to complete the project are planned to occur.*
- b. A baseline schedule narrative describing in detail the Contractor's overall plan to accomplish the Work.*
- c. A baseline earnings schedule (Form C-13C) showing the Contractor's anticipated progress of the Work each month based tasks required for timely completion of the work, including as applicable the work to be performed by sub-contractors, suppliers, the Department, and/or others. When preparing the schedule, the Contractor shall consider all applicable constraints and restrictions such as seasonal, weather, traffic, utility, railroad, right of way, environmental, permits, and other limitations to the work on anticipated monthly earnings.*

~~(a)~~ **2. Monthly Progress Schedule Requirements:**

1. ~~**Baseline Progress Schedule**~~ **Update.** ~~The Contractor shall submit to the Engineer his Baseline Progress Schedule at least 7 calendar days prior to beginning work. The Baseline Progress Schedule submittal shall include three (3) sets of a written Progress Schedule Narrative and, where applicable, a Progress Earnings Schedule as defined below:~~

- a) ~~Progress Schedule Narrative:~~ The Progress Schedule Narrative shall consist of the following information, as applicable:
- i. ~~A description of the Contractor's overall plan of operations including the planned procedures and crew(s) required to accomplish each major operation;~~
 - ii. ~~A Tabular Schedule to establish milestone(s) for completing each phase, feature, or stage of work as specified by contract or, where not specified by the contract, as determined by the Contractor. The schedule shall also indicate the planned sequence and start/finish dates for all time based tasks required to complete each milestone;~~
 - iii. ~~A discussion on the working calendar with considerations for applicable constraints or restrictions; (i.e. normal weather, traffic, holidays, time of year, utility, etc.);~~
 - iv. ~~A description of any potential issues that may impact the schedule.~~
- b) ~~Progress Earnings Schedule:~~ Progress Earnings Schedule will not be required for projects with a contract duration of sixty (60) calendar days or less. The Progress Earnings Schedule shall be prepared on forms furnished by the Department to indicate the anticipated earnings for each payment period as of the Contractor's payment cut off date as determined in accordance with Section 109.08. Progress earnings shall be based on the total contract value. Total contract value will be considered to mean the original amount of the contract including any authorized adjustments in accordance with, but not limited to, the provisions of Sections 104 and 109.05. Payments for stored or stockpiled material in accordance with Section 109.09 of the Specifications will not be considered in the earnings schedule.

2. ~~Revised Progress Schedule:~~

The Contractor shall submit a Revised Progress Schedule as determined and requested by the Engineer, if prosecution of the work deviates significantly from the phasing, general sequence, or the proposed means and methods as represented on the Schedule of Record (SOR). The Contractor will also be required to submit a Revised Progress Schedule to reflect any impacts to the schedule for changes authorized by the Engineer including, but not limited to changes in the work in accordance with the requirements of Section 104 and Section 109.05 of the Specifications.

The Contractor shall submit the Revised Progress Schedule within 10 calendar days of the date of the Engineer's written request. The Revised Progress Schedule shall be in the form of a Revised Baseline Progress Schedule which shall reflect the actual progress of accomplished work (actual work to date), any impact of a change authorized by the Engineer, and the proposed time based plan for completing the remaining work. Upon acceptance by the Engineer, the latest Revised Progress Schedule shall replace the previously accepted Baseline or Revised Progress Schedule.

- 3. ~~Failure to Furnish Progress Schedules~~** Work shall not commence until the Contractor submits his Baseline Progress Schedule in accordance with the requirements of this section, unless otherwise approved in writing by the Engineer.

~~Delays in work resulting from the Contractor's failure to provide the progress schedule will not be considered just cause for extension of the contract time limit or for additional compensation.~~

~~(b) Review and Acceptance~~

~~The Engineer will review all~~ *a progress schedule update each month, within five business days after the data date (current progress estimate date). The progress schedule update shall show the current as-built status of the project and the current plan to complete the remaining work as of the data date. The monthly progress schedule update submission shall be prepared and submitted according to the requirements and guidelines defined in Section IV.5.B of the VDOT Post-Award Scheduling Guide and shall include:*

- a. An updated bar-chart or CPM schedule showing the actual start and finish dates of all activities completed prior to the data date; and the start date, percent complete, and remaining duration of all on-going activities as of the data date.*
- b. An updated progress earnings schedule (Form C-13C) showing the actual earnings for work completed and projected earnings for the remaining work as of the data date.*
- 3. **SOR Revisions.** When the work plan or sequence of work deviate significantly from the SOR the Contractor shall submit an SOR revision as directed by the Engineer, "Deviate" significantly will mean major changes in the work plan or sequence resulting in schedule impacts that alter the project critical path, milestones, or the Progress Earnings Schedule significantly. Such changes may include but are not limited to:*
 - a. A change to the overall work plan or sequence that deviates significantly from the SOR.*
 - b. The actual sequence or duration of critical activities and the planned sequence shown in the SOR deviate significantly from the SOR.*
 - c. The Engineer has executed a change order that changes or will change the planned sequence or duration of controlling items of work or critical path activities shown on the SOR or will impact the completion date of an interim Contract milestone or the Contract time limit.*
 - d. The percentage of work completed falls behind by more than 10 percent relative to the SOR and the project is not presently at risk of finishing late.*

The proposed SOR revision shall be submitted within five business days after the data date (current progress estimate date) or as directed by the Engineer, in the same form and content as a Baseline Progress Schedule. The proposed SOR revision shall be based on the current SOR that is updated to reflect the current as-built status of the project as of the data date. Upon the Engineer's acceptance, the proposed SOR revision will be the SOR until the Engineer's acceptance of a later SOR revision.

- 4. **Final As-Built Schedule.** Within 30 days after final acceptance, the Contractor shall submit to the Engineer a final as-built schedule in the same form as a monthly progress schedule update. The Contractor shall certify in writing that the actual start and finish dates for each activity in the final as-built schedule are accurate.*

(c) Submittal and Reporting Format

Unless directed otherwise by the Engineer, the Contractor shall submit its progress schedule in the following manner.

1. A transmittal letter to the Engineer listing the items, date, and number of copies of items being submitted.
2. Two (2) printed legible paper copies of the bar chart or CPM progress schedule, progress schedule narrative, and progress earnings schedule.
3. One (1) compact disk (CD) containing electronic "PDF" copies of the bar chart or CPM progress schedule, progress schedule narrative, and progress earnings schedule, an electronic back-up file copy of the working bar-chart or CPM schedule; and an electronic working file copy of the progress earnings schedule (Form C-13C). Each electronic file submittal shall have a unique file name indicating the Contract ID, submission number, submittal type, and data date of the submission (e.g. C00012345C01_B01_Narrative_6-04-12.pdf)

(d) Engineer's Review and Acceptance

~~The Engineer will review and respond to all schedule submittals within 7 calendar days of receipt of the Contractor's complete submittal. Review and acceptance by the Engineer, unless the schedule submittal is incomplete, unacceptable, or needs clarification or justification, as determined by the Engineer. The Engineer's acceptance will be based on completeness and conformance with the requirements of this section, the Contract and the Specifications. If the Contractor's Progress Schedule is deemed to be unacceptable, the Engineer will issue a written notification for resubmission describing the deficiencies in completeness or conformance prompting specified schedule submittal requirements.~~

~~When the Engineer's decision written response indicates the schedule submittal is incomplete, unacceptable, or requests clarification or justification, the Contractor shall respond as required within 7 days of receipt of the Engineer's response.~~

~~Upon acceptance, the Engineer will issue a written notice of acceptance that may include comments or concerns on the schedule. The Contractor shall respond within 7 calendar days of receipt of the Engineer's comments, concerns or written notification for resubmission.~~

~~Upon The Engineer's review and acceptance, the latest Baseline Progress Schedule or Revised Progress Schedule shall become the Schedule of Record (SOR). The SOR is defined as the currently accepted progress schedule by which all schedule references will be made and progress evaluated.~~

~~Review and acceptance by the Engineer will not constitute a waiver of any contract requirements~~*Contract requirement* ~~and will in no way assign responsibilities of the~~*make the Department responsible for or bound by the Contractor's schedule,* work plan, scheduling assumptions, ~~and/or~~ validity of the schedule ~~to the Department.~~ Failure of the Contractor to include in the ~~Progress Schedule~~*SOR* any element of work required *by the Contract* for timely completion of the project ~~shall~~*will* not excuse the Contractor from completing the ~~entire scope of work~~*Work* within the Contract specified *interim* completion milestone(s) ~~or the Contract time limit, as applicable.~~

~~(e)~~ ***Failure to Comply with Progress Schedule Submission Requirements***

With the exception of project start-up activities approved in writing by the Engineer, the Contractor shall not commence work, until seven days after the date the Contractor submits a complete Baseline Progress Schedule, unless approved by the Engineer in writing.

If the Contractor fails to comply with any of the Progress Schedule submissions within the time and in the manner specified, the Engineer will withhold approval of the Contractor's ensuing monthly progress estimates until the Contractor has satisfied the submission requirements. If the Contractor fails to submit the Final As-Built Schedule in the time and manner required, the Engineer will withhold approval of the final payment until the Contractor satisfies the submission requirement.

The Department shall not be responsible for any delays, costs or damages resulting from the Contractor's failure to submit the schedule submittals in accordance with the requirements of the Contract Documents.

(f) Monitoring the Work and Assessing Progress

~~1. Monitoring the Work~~—The Engineer will monitor the ~~work~~**Work** regularly to ~~assess the Contractor's progress and to identify any~~ deviations from the Contractor's ~~scheduled performance relative to the currently accepted Baseline or Revised Progress Schedule. The Engineer may request a meeting with the Contractor to discuss the Contractor's current progress or to establish the approximate date for starting each critical inspection stage during the following 30 days. At least once a week, the Contractor shall advise the Engineer of the approximate timing for anticipated critical stages for the subsequent week. The Engineer shall be advised~~**SOR. The Contractor shall notify the Engineer** at least 24 ~~hours~~**two working days** in advance of any changes in the Contractor's planned operations or critical stage work requiring Department ~~oversight or~~ inspection.

1. Monthly Progress Meeting. *The Contractor shall attend a monthly progress meeting with the Engineer on a mutually agreed date in accordance with the provisions of Section 108.01. The Contractor shall furnish a detailed 30-day look-ahead schedule based on the SOR, and shall discuss the current status of the project and work planned for the following 30 days.*

2. Progress Evaluation—~~The Engineer.~~ *Progress will evaluate*~~be evaluated by the Contractor's Engineer at the time of the monthly progress monthly estimate relative to the currently accepted Baseline or Revised Progress Schedule.~~**SOR.** *The Contractor's actual progress may***will** be considered unsatisfactory if *any of the following conditions occur:*

a). ~~The cumulative actual~~ **total earnings percentage** for work completed ~~is 10 or more percentage points to date, based on the Contractor's current progress payment estimate, falls behind the anticipated cumulative earnings for work scheduled; or percentage indicated in the SOR by more than 10 percent. If the Earnings Schedule is based on a cost-loaded CPM schedule, then unsatisfactory progress will be based on falling behind the SOR late earnings percentage by one percent or more.~~

b) ~~Any.~~ *The current projected completion date of a Contract interim completion milestone* **activity** *is* ~~later than the scheduled milestone by more than 7 calendar~~ **14 days or** *after the specified completion date, if applicable.*

- c. *The current projected completion date of the project completion date is later^{more} than the contract completion date by the least of 14 calendar days or 10 percent of the remaining contract time^{21 days} after the Contract time limit.*

(dg) Progress Deficiency and Schedule Slippage:

When a monthly progress evaluation shows that the Contractor's actual progress of the Work is ~~deemed to be~~ unsatisfactory, the Engineer will issue a written notice of unsatisfactory performance to indicate that further actions may be taken as defined in Sections the Contractor. Within 14 days from the date of receipt of the Engineer's notice, the Contractor shall respond by submitting a written statement describing any actions taken or proposed by the Contractor to correct the progress deficiency. If the Contractor's response includes a proposed recovery plan, the current progress schedule update shall be modified accordingly to show the Contractor's proposed recovery plan. The Contractor may submit to the Engineer a written explanation and supporting documentation to establish that such delinquency is attributable to conditions beyond its control. If the Engineer approves the Contractor's recovery plan, the modified progress schedule update showing the recovery plan will be treated as the current update and will not replace the SOR.

If the Contractor fails to respond within the time required, or the response is unacceptable, 5 percent of the monthly progress estimates will be withheld as retainage as provided in Section 109.08(c), for each month the Contractor's actual progress remains unsatisfactory. In addition, the Contractor's prequalification status may be changed as provided in Section 102.01 and 109, and the Contractor may be temporarily disqualified from bidding on contracts with the Department as provided in Section 102.08 of the Specifications, if progress remains unsatisfactory at the time of preparation of the next monthly progress estimate. ~~Within 10 calendar days of the date of the Engineer's notice of unsatisfactory progress, the Contractor may submit to the Engineer, a recovery plan to reflect a proposed plan to correct the progress deficiency or schedule slippage, or submit to the Engineer a written explanation and supporting documentation to establish that such delinquency is due to conditions beyond the Contractor's control. Any schedule revisions resulting from a recovery plan will be reviewed in accordance with subsection (c) herein, but shall not replace the SOR.~~ The Engineer may postpone taking these actions when a time extension is under consideration.

When the Engineer determines the Contractor's progress is again satisfactory the 5 percent retainage previously withheld will be released according to the provisions of Section 109.08(c). If the Contractor is temporarily disqualified from bidding, the Contractor will not be reinstated until either the progress of the Work has improved to the extent that in the opinion of the Engineer the Work can be completed on time or final acceptance of the Work has been issued by the Engineer in accordance with the provisions of Section 108.09.

108.04—Determination and Extension of Contract Time Limit

(a) **Contract Time Limit**

The Contract time limit for completion *and final acceptance of the Work* will be determined by the Department and specified in the Contract Documents. No request for an extension of

time will be considered that is based on any claim that the ~~contract~~*Contract* time limit as originally established *in the Contract* was inadequate.

~~With a fixed date contract when~~*In planning and scheduling the date of contract execution is not—Work the Contractor shall take into consideration normal, expected and known conditions considered unfavorable for the prosecution of the Work. The Contractor shall place sufficient workers, materials, and equipment on the project to complete the Work in accordance with the specified Contract time limit.*

(b) *Delays and Extension of Contract Time Limit*

When the Contractor is delayed in commencing the Work due to the Department's failure to execute the Contract within 60 calendar days after the opening of bids, or when the Contractor is unable to commence work because of any failure of the Department, or when the Contractor is delayed because of due to the fault of the Department or causes within the Department's control, the Contractor will be given an extension of time based on the number of days delayed equal to the number of days the 60-day period is exceeded or commencement of the work is delayed. No time extension will be allowed for a delay in commencing work when the delay is the fault of the Contractor.

When the Contractor is delayed in commencing the Work due to the Department's failure to execute the Contract by the notice to proceed date when such date is specified in the Contract, the Contractor will receive an extension of time equal to the number of days between the contract-specified notice to proceed date and the actual date of contract execution.

When the Contractor is delayed in commencing work by the Engineer directing the Contractor not to begin work on the notice to proceed date specified in the Contractor's Notice to Proceed, the Contractor will receive an extension of time equal to the number of days between the Contractor's selected notice to proceed date and the actual date the Contractor is allowed to begin work.

For the purposes of this section, the term delay is intended to cover all such conditions, unforeseen events, actions, occurrences, forces or factors, disruption, interference, impedance, hindrance, or otherwise that delays the start or extends the completion date of an activity or work item. Delays are either excusable or non-excusable. The Contractor will be entitled to time extensions only for excusable delays that extend the scheduled completion date of the project beyond the 60 calendar days. No time extension will be allowed for a delay in the date of contract execution when the delay is the fault of the Contractor. Latest of the Contract fixed completion date or its most recent extension. Excusable delays are either compensable or non-compensable. The Contractor will be entitled to compensation or damages only for excusable compensable delays.

~~The Engineer will determine if an~~*When the Contractor requests an extension of the Contract time limit for completion is warranted by additions to the Contract. The Contractor shall inform the Department, in writing, of a request for time extensions in his Work Order in accordance with the applicable portion(s) of Section 104 or 109. The Contractor shall provide written supporting data for any request for extension of time due to quantity additions and or additional compensation or altered work.*

~~During prosecution of the work, the Contractor shall identify the causes for any delays~~*damages that are attributable to conditions he deems to be beyond his control and shall identify the particular construction operations affected, their criticality to project milestones or overall contract completion, and the significant dates that encompass the periods of an excusable delay. The Contractor shall*

~~furnish all such information necessary for, the Department~~*Engineer will evaluate the Contractor's request to make determine if an adequate evaluation of any claim received from the Contractor for adjustment to the Contract is warranted. If warranted, the Engineer will grant an extension of the contract*~~Contract time limit within three days of experiencing such a~~*when an excusable* delay.

~~(a) **Fixed Date:** Unless otherwise indicated in the Contract, the contract~~*extends the scheduled completion date of the project beyond the lattermost of the Contract fixed completion date or its most recent extension. The Engineer will not consider a request for an extension of the Contract time limit will be specified without notice and proper documentation and justification as a fixed date for completion. The Contractor shall take into consideration normal conditions considered unfavorable for the prosecution of the work, and shall place sufficient workers and equipment on the project to complete the work in accordance with the specified contract time limit*~~defined herein.~~

~~The Engineer may give consideration~~

The Department will not grant an extension of the Contract time limit for any delays incurred on any activities occurring on days not identified in the Contractor's SOR as working days. However, if an excusable delay prevents the Contractor from performing work as previously scheduled or extends the completion date of a scheduled activity into a period identified in the SOR as non-working days and the Contractor is unable to complete the activity due to unsuitable conditions or circumstances beyond its control that prevents the Contractor from performing the work, the Department will consider extending the Contract time limit for the excusable delay to include the additional number of days lost due to the extended delay.

The Engineer will determine entitlement for an extension of the Contract time limit and any compensation or damages for delays according to the following:

1. ***Excusable, Non-Compensable Delays.*** *Excusable non-compensable delays are delays affecting the critical path that are not caused by the Department or the Contractor, or their respective agents or employees, or causes within their control. They include but are not limited to the following:*
 - a. *Floods, tidal waves, tornadoes, hurricanes, lightning strikes, earthquakes, fires, epidemics, or similar natural phenomena;*
 - b. *Extraordinary, unforeseen, and unavoidable delays in material deliveries;*
 - c. *Acts of government entities other than the Department;*
 - d. *Unforeseen and unavoidable industry-wide labor strikes affecting the Contractor or its subcontractors' or suppliers' workforce that are beyond the Contractor's control;*
 - e. *Work by third parties that are not the responsibility of the Contractor or within its control such as utilities, railroad, etc.;*
 - f. *Civil disturbances or sovereign acts of the State, including but are not limited to State shutdowns, states of emergency, or epidemic or quarantine restrictions.*
2. ***In the event of a critical path delay*** *that is attributable to acts or omissions of both the Department and the Contractor, the delay will be considered excusable non-compensable, The Contractor may be entitled to an extension of the Contract time limit, but no additional compensation or damages, for excusable non-compensable*

delays, provided that the Contractor complies with the applicable notice and time extension request requirements as defined herein.

3. ***Excusable, Compensable Delays.*** *Excusable, compensable delays are delays to the critical path that are caused by acts or omissions of the Department, its agents or employees, or causes within their control. They include but are not limited to the following:*

- a. *Changes in the Work authorized by the Engineer, in accordance with Section 104.02, Changes in Quantities or Alterations in the Work;*
- b. *Unforeseen changes in site conditions, in accordance with Section 104.03, Differing Site Conditions;*
- c.. *Stoppage of work authorized by the Engineer, in accordance with Section 108.05, Suspension of Work ordered by the Engineer;*

The Contractor may be granted an extension of the Contract time limit and/or additional compensation or damages for extension of time when a ~~excusable, compensable~~ delay occurs due to unforeseen causes beyond the control of or without the fault or negligence of, provided that the Contractor. However, consideration will not be given to extensions of time ~~complies with the applicable notice requirements and time extension request requirements as defined herein.~~

4. ***Non-Excusable Delays.*** *Non-excusable delays are delays to the critical path caused by or attributable to acts or omissions of the Contractor, its agents, employees, subcontractors or suppliers or causes within their control; or conditions that the Contractor could reasonable have forseen or avoided. Delays caused by normal or ordinary weather conditions or conditions resulting from normal weather are non-excusable. For purposes of this section, normal weather is defined as that which is not catastrophic or extraordinary and can be reasonably anticipated at the time the Contract was executed. The Contractor is not entitled to an extension of the Contract time limit or additional compensation or damages for non-excusable delays.*

~~For the purposes of this Section normal weather is defined as that which is not considered extraordinary or catastrophic and is not reasonably conducive to the Contractor progressively prosecuting critical path work under the Contract. Weather events considered extraordinary or catastrophic include, but are not limited to tornados, hurricanes, earthquakes, and floods that exceed a 25-year storm event as defined by National Oceanic and Atmospheric Administration (NOAA) for the NOAA data gathering location that is nearest the project site.~~

~~If there is a delay in the progress of the work due to unforeseen causes described within these Specifications, and the delay extends the contract time limit into the period between November 30 of one year and April 1 of the following year and working conditions during such period are unsuitable for the continuous prosecution or completion of the work, then consideration may only be given to granting an extension of time that will encompass a suitable period during which such work can be expeditiously and acceptably performed.~~

5. ***Concurrent Delays.*** *Concurrent delays are discrete delay events occurring at the same time to separate critical activities. When an excusable delay occurs concurrently with a non-excusable delay, the Contractor may be entitled to an extension of the Contract time limit for the period of concurrency, but no additional compensation or damages for the concurrent delay, provided that the Contractor complies with the applicable notice requirements and time extension request requirements as defined*

herein. Any portion of an associated concurrent delay event that is outside the period of concurrency will be apportioned to the responsible party and will be treated accordingly as excusable non-compensable, excusable compensable, or non-excusable, in accordance with this section. For a delay event to be considered concurrent the delay event must occur simultaneously in part or in whole with other delay events and must extend the completion date of the project beyond the Contract time limit independent of the other delays.

(c) Notice of a Delay

Unless specified elsewhere in the Contract Documents, in the event of an occurrence of a delay event for which the Contractor will be seeking an adjustment to the Contract, the Contractor shall submit a notice in accordance with this subsection, unless directed otherwise by the Engineer. The Engineer will not consider requests for adjustments to the Contract unless the following notification procedures are followed:

1. **Initial Notice:** The Contractor shall notify the Engineer verbally as soon as it discovers or encounters a delay event for which a contract adjustment appears necessary. Unless authorized to proceed with the work by the Engineer, the Contractor shall not start or continue an activity or item of work for which an adjustment to the Contract may be necessary.
2. **Written Notice:** The Contractor shall follow-up within five (5) working days of the initial notice with a written notice to the Engineer, unless directed otherwise by the Engineer. The written notice shall include:
 - a. A description of the issue, time and date the issue was first identified, and specific location of the issue, as appropriate;
 - b. An explanation of why the issue is an excusable delay;
 - c. Activities or items of work affected by the issue and the potential impact of the change or delay on the critical path, milestones, or project completion date, as applicable;
 - d. Any actions necessary to avoid or mitigate the impact;
 - e. Any additional information that will facilitate timely resolution of the issue;

(d) Engineer's Determination of Entitlement to Extension of the Contract Time Limit

Upon receipt of the Contractor's written notice, the Engineer will acknowledge receipt of the Contractor's written notice. Within ten (10) business days of receipt of the Contractor's written notice, the Engineer will provide a written response that will include one of the following:

1. An agreement of entitlement to a Contract adjustment, in which case the Engineer will request the Contractor to submit a written request for an adjustment of the Contract with necessary additional information and justification as defined herein and in accordance with Section 109.05, as applicable;
2. A denial of entitlement to a Contract adjustment, in which case the Engineer will provide an explanation why the issue does not represent a change for which an adjustment to the Contract is warranted;

3. *A request for additional information, in which case the Engineer will inform the Contractor what is needed and when.*

If the Contractor is dissatisfied with the outcome of the Engineer's response, the Contractor may pursue a claim in accordance with Section 105.19.

(e) Submission of Request for Extension of the Contract Time Limit

In the event of an excusable delay that extends the completion date of the project beyond the Contract time limit, the Contractor shall submit a request for an adjustment to the Contract within fourteen (14) days of the end date of a delay event, unless directed otherwise in writing by the Engineer. For prospective delays the Contractor shall prepare and submit a SIA based on the TIA method. For retrospective delays the Contractor shall prepare and submit a SIA based on the Contemporaneous Impact Analysis method. For guidelines on performing a SIA using either a TIA or Contemporaneous Impact Analysis method, see Section VI of the VDOT Post Award Scheduling Guide. The Contractor shall submit along with its request for an adjustment to the Contract a SIA statement and applicable SIA schedules in accordance with the following:

1. SIA Statement: *The SIA statement shall include the following:*

- a. *A description of the delay event, including time, date, and location of the event, if appropriate.*
- b. *An explanation of why the delay constitutes a change to the Contract, including references to applicable portions of the Contract.*
- c. *A description of the activities or work items affected and any impact on the project critical path, milestones, or completion date of the project, as applicable.*
- d. *A description of any shifts in the project critical path and the reasons for the shifts for each successive schedule update contemporaneous with the delay event relative to the preceding schedule update, as applicable.*
- e. *A SIA summary showing the data date and calculated completion dates for all applicable milestones and the project completion date for each successive SIA schedule, including as applicable, the SOR, pre-delay unimpacted schedule, any contemporaneous monthly schedule updates, and the post-delay impacted schedule. The SIA summary shall also show any incremental schedule gains or slippages on the project completion date for each SIA schedule. The SIA summary shall also categorize the schedule gain/slippage as excusable compensable, excusable non-compensable, or non-excusable.*

A description of any revisions made to the SIA schedules since the pre-delay schedule update, including added or deleted activities, and changes in logic, activity durations, calendars, and constraints; as well as the reasons for the revisions.

- g. *Any actions taken or needed to avoid or mitigate the delay impacts.*
- h. *Any additional information needed to justify the request or facilitate timely resolution of the issue.*

2. **SIA Schedules:** *The SIA schedule submission shall include the following:*

- a. *The SOR in place prior to the date the delay event started, showing the project critical path and any applicable milestones.*
- b. *The most recently accepted progress schedule update in place prior to the date the delay event started, showing the current status of the project, including any variances in the durations and completion dates of the critical path activities, milestones, and the project completion date, as applicable, relative to the SOR.*
- c. *A pre-delay unimpacted schedule, which shall be based on the most recently accepted progress schedule update in place prior to the start date of the delay event updated to show the current status of the project, as of the date the delay event started. The pre-delay unimpacted schedule shall also show any variances in the durations and completion dates of the critical path activities, milestones, and the project completion date, as applicable, relative to the most recently accepted progress schedule update.*
- d. *Any contemporaneous monthly schedule updates submitted during the delay event, showing the current status of the project, including any variances in the durations and completion dates of the critical path activities, milestones, and the project completion date, as applicable, relative to the previous monthly schedule update.*
- e. *A post-delay impacted schedule, showing the delay events, affected activities, and the current status of the project, including any variances in the durations and completion dates of the critical path activities, milestones, and the project completion date, as applicable, relative to the pre-delay unimpacted schedule.*

(f) **Engineer's Final Response**

Upon receipt of the Contractor's written request for an adjustment to the Contract, the Engineer will acknowledge receipt of the Contractor's written request. Within ten (10) business days of receipt of the Contractor's written request, the Engineer will provide a written response that will include one of the following:

1. *An agreement of the extent of a Contract time extension, in which case the Engineer will issue a bilateral change order for an adjustment to the Contract in accordance with this section and Section 109.05, as applicable;*
2. *A disagreement of the extent of a Contract time extension, in which case the Engineer may issue a unilateral change order (Form C-10) for an adjustment to the Contract in accordance with this section and Section 109.05, as applicable;*
3. *A request for additional information, in which case the Engineer will inform the Contractor what is needed and when. The Engineer will provide a final response within ten (10) business days of receipt of the additional information.*

If the Contractor is dissatisfied with the outcome of the Engineer's response or the Engineer's response is untimely, the Contractor may pursue a claim in accordance with Section 105.19.

108.05—Suspension of Work Ordered by the Engineer

- (a) If the ~~Engineer orders the Contractor in writing to suspend~~ performance of all or any portion of the work is suspended or delayed by ~~on the Engineer in writing~~ *project critical path* for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the Contractor believes that additional compensation and/or ~~contract~~ *Contract* time is due as a result of such suspension or delay, the Contractor shall submit to the Engineer in writing a *written* request for adjustment *according to Section 108.04* within ~~seven calendar~~ *7* days of *after* receipt of the notice to resume work. The *Contractor's* request shall set forth the reasons and support for such adjustment.
- (b) Upon receipt, the Engineer will review the Contractor's documentation and evaluate the Contractor's request. If the Engineer agrees that the cost and/or time required for the performance of the ~~contract~~ *Contract* has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, his suppliers, or subcontractors at any ~~approved~~ tier, and was not caused by ~~normal~~ weather, the Engineer will make an adjustment (excluding profit *and consequential damages*) and modify the ~~contract~~ *Contract* in writing accordingly. The Engineer will notify the Contractor of the determination regarding whether or not an adjustment of the ~~contract~~ *Contract* is warranted.
- (c) No ~~contract~~ *Contract* adjustment will be allowed unless the Contractor has submitted the request for adjustment within the time *and in the manner* prescribed.
- (d) No ~~contract~~ *Contract* adjustment will be allowed under this ~~clause~~ *Section* to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term or condition of the ~~contract~~ *Contract*.

108.06—Failure To Complete on Time

(a) **General**

For each calendar day that any work remains incomplete after the ~~contract~~ *Contract* time limit specified for the completion of the work, the Department will assess liquidated damages against the Contractor. Liquidated damages will be assessed at the rate applicable to the Contract in accordance with the Schedule of Liquidated Damages, Table I-1, or as otherwise specified in the ~~contract~~ *Contract* provisions. Liquidated damages will be deducted from any monies due the Contractor for each calendar day of additional time consumed until final completion and acceptance of the work, subject to such adjustments as provided in accordance with the requirements of Section 108.04, not as a penalty, but as liquidated damages. The Contractor waives any defense as to the validity of any liquidated damages stated in the Contract, the Contract Documents, or these Specifications and assessed by the Department against the Contractor on the grounds that such liquidated damages are void as penalties or are not reasonably related to actual damages.

(b) **Liquidated Damages.**

The following Schedule of Liquidated Damages, representing the cost of administration, engineering, supervision, inspection and other expenses, will be charged against the Contractor for each calendar day beyond the ~~fixed contract~~ *Contract* time *limit* that the Contract remains in an incomplete state:

TABLE I-1
Schedule of Liquidated Damages

Original Contract Amount in Dollars	Daily Charge in Dollars
0.00 – 500,000.00	350
500,000.01 – 2,000,000.00	600
2,000,000.01 – 8,000,000.00	1,350
8,000,000.01 – 15,000,000.00	2,500
15,000,000.01 – Plus <i>or more</i>	3,100

108.07—Default of Contract

The Contractor may be declared in default if he does any one of the following:

- (a) ~~fails~~ *Fails* to begin the ~~work under the Contract~~ *Work* within ~~15 calendar~~ *10 days* ~~of~~ *after* the ~~notice to proceed~~ *date of contract execution*, except as otherwise permitted by specific ~~contract~~ *Contract* language, or the provisions of Section *105.01 or Section 108.02*;
- (b) ~~fails~~ *Fails* to perform the ~~work~~ *Work* with sufficient workers and equipment or with sufficient materials to ensure prompt completion of the ~~work~~ *Work*
- (c) ~~performs~~ *Performs* the ~~work unsuitably~~ *Work in such manner that it is unacceptable*, or ~~fails~~ *fails*, neglects or refuses to ~~promptly~~ *promptly* remove ~~and replace~~ *and replace* materials or ~~perform a new~~ *work* that ~~is~~ *are* unacceptable
- (d) ~~discontinues~~ *Discontinues* prosecution of the ~~work~~ *Work without an order to do so from the Engineer*
- (e) ~~fails~~ *Fails* to resume work that has been discontinued within a reasonable time after notice to do so
- (f) ~~becomes~~ *Becomes* insolvent, is declared bankrupt, or commits any act of bankruptcy or insolvency
- (g) ~~allows~~ *Allows* any final judgment to stand against him unsatisfied for a period of 10 days
- (h) ~~makes~~ *Makes* an assignment for the benefit of creditors, ~~or~~
- (i) ~~fails~~ *Fails* for any other cause whatsoever to carry on the work ~~or in accordance with the Contract Documents or to perform~~ *contractual obligations in an acceptable manner*
- (j) *Disregards laws, regulations, ordinances, the Engineer's written instructions, or otherwise remains in substantial violation of any provision of the Contract*

If any of these conditions exists, the Engineer will give notice in writing to the Contractor and his surety of the delay, neglect, or default. If within 10 days after the date of such notice the Contractor or his surety has not taken measures that will, in the judgment of the ~~Chief~~ Engineer, ensure satisfactory progress of the work or give assurances satisfactory to the Engineer that the provisions of

the Contract will be fully carried out and instructions complied with, the Commissioner may then, or at any time thereafter, declare the Contractor in default. Without violating the Contract, the Commissioner may call upon the Contractor's surety for the satisfactory and expeditious completion of all work under the Contract, *the removal and replacement of any unacceptable or unauthorized work*, or may otherwise terminate the Contract in accordance with the provisions of Section 108.08. *If the Commissioner declares the Contractor in default, payments to the Contractor will be withheld and may be made directly to the Contractor's surety. Further negotiations regarding the remaining work will be conducted with the Contractor's surety.*

~~If the Contractor is declared in default, subsequent payments will be made to the surety and further negotiations will be conducted with the surety.~~

If the Contractor's surety fails or refuses to proceed ~~with the work~~ in accordance with the *Commissioner's* ~~instructions of the Commissioner~~, the Commissioner will appropriate and use any or all materials and equipment on the project site that are suitable and acceptable and will enter into an agreement with others for the completion of the work, or he will use such other methods as he deems necessary to ensure the completion of the work.

Costs and charges incurred by the Department, including the cost of completing the ~~work under the Contract~~ *Work under the Contractor the cost of removal and replacement of any unacceptable or unauthorized work*, will be deducted from any monies due or that will become due the Contractor and his surety. If the expense incurred by the Department is less than the sum that would have been payable under the Contract had the work been completed by the Contractor, the Contractor and his surety will be entitled to receive the difference. If the ~~expense exceeds~~ *expenses exceed* the sum that would have been payable under the Contract, the Contractor and his surety shall be liable for and shall pay to the Commonwealth the amount of the excess.

108.08—Termination of Contract

- (a) **Conditions for Termination:** The Department may terminate the Contract or any portion thereof because of any of the following conditions:

1. ~~default~~ *Default*
2. ~~national~~ *National* emergency
3. ~~action~~ *Action* by the Commonwealth, U.S. government, or court order, ~~or~~
4. ~~conditions~~ *Conditions* beyond the control of the Department

- (b) ~~Provisions~~ *5. For the convenience of the Department*

~~Termination:~~ ~~Termination will be in accordance with the following:~~

1. ~~Disturbed areas shall be promptly placed in an acceptable condition as directed by the Engineer. Payment for such work will be made at the contract unit prices or, in the absence of contract unit prices, in accordance with the requirements of Section 104.03.~~
2. ~~Payment will be made for the actual number of units or items of work completed at the contract unit price, or as mutually agreed, for items of work partially completed. No claim for loss of anticipated profits will be considered, and the provisions of Section 104.02 will not apply.~~

- ~~3. Reimbursement for organizing the work when not specified in the Contract and moving equipment to and from the job will be considered where the volume of work completed is too small to compensate the Contractor for these expenses under the contract unit prices.~~
 - ~~4. At the option of the Engineer, materials the Contractor obtains for the work that have been inspected, tested, and accepted by the Engineer and that have not been incorporated in the work may be purchased from the Contractor at actual costs as shown by receipted bills, purchase orders, bills of lading or other similar actual cost records at such points of delivery as may be designated by the Engineer.~~
 - ~~5. The termination of the Contract or a portion thereof shall not relieve the Contractor of his responsibilities for the completed work **Work**, nor shall it relieve his surety of its obligation for and concerning any just claims arising out of the ~~work~~ **Work** performed or remaining to be performed.~~
- (b) **Termination for Convenience.** *The Engineer will deliver to the Contractor and surety written notice of termination for convenience specifying the extent of the termination and the effective date. A termination for convenience may be directed at any time after the notice of award of the Contract. Termination for convenience will be accomplished in accordance with the following:*
1. **Procedure.** *The Contractor shall immediately upon receipt of the notice of termination do the following:*
 - a. *Stop work as directed in the notice*
 - b. *Disturbed areas shall be promptly placed in an acceptable condition as directed by the Engineer*
 - c. *Place no further subcontracts or orders for materials, services, or equipment, unless necessary for any part of the Work not terminated or to protect any part of the Work completed*
 - d. *Terminate all subcontracts or orders to the extent related to the terminated work, unless instructed otherwise by the Department*
 - e. *Settle all outstanding liabilities with subcontractors and suppliers arising from the termination*
 - f. *Transfer title and deliver to the Department any work in progress, completed work, materials, supplies, equipment, drawings, plans, information, warranties or other property that were purchased, acquired, fabricated, produced, supplied, or constructed for the Work, whether completed or terminated, would be required to be furnished to the Department on completion of the Contract*
 - g. *Complete performance of Work not terminated, if any*
 - h. *Inventory along with the Engineer any acceptable materials obtained, but not incorporated into the Work*
 - i. *Take any action necessary or that the Engineer may direct for the protection and preservation of the site or other property that is in the Contractor's possession or control in which the Department has or may acquire an interest*

2. **Payment.** *Within 30 days after the Contractor receives the Department's notice of termination for convenience, or within such time as the Contractor and the Engineer mutually agree, the Contractor shall submit a request for payment due for work performed through the effective date of termination and as a result of the termination for convenience. The Contractor shall submit with the request sufficient cost records to substantiate the payment amount requested.*

The Department shall pay and the Contractor shall accept, as full payment for all work and materials provided, a sum mutually agreed to by the Contractor and the Department determined as follows:

- a. *Work on Contract pay items performed prior to termination for which the Contractor has not been paid will be paid at the Contract price according to Section 109.03, or in the absence of Contract unit prices, in accordance with the requirements of Section 109.05 (Extra and Force Account Work). Items eliminated entirely by termination will be paid for as provided in Section 109.07. No claim for loss of anticipated profits will be considered, and the provisions of Section 104.02 will not apply.*
 - b. *Reimbursement for organizing the Work when not specified in the Contract and moving equipment to and from the project site will be considered where the volume of work completed is too small to compensate the Contractor for these expenses under the Contract unit prices.*
 - c. *At the option of the Engineer, materials the Contractor obtains for the Work that have been inspected, tested, and accepted by the Engineer and that have not been incorporated in the Work may be purchased from the Contractor at actual costs as shown by receipted bills, purchase orders, bills of lading, paid invoices, or other similar actual cost records at such points of delivery as may be designated by the Engineer.*
 - d. *If a sum cannot be agreed upon, the Contractor shall be paid by unilateral change order and may seek recourse for the disputed amount in accordance with Section 105.19.*
 - e. *When requested by the Department, the Contractor shall furnish itemized statements of the cost of the work performed and shall give the Department (and/or the Department's Auditors) access to any and all financial and/or project records and documents, relating thereto. Unless the Contractor, when requested to do so, furnishes such itemized statements and access to any and all financial and/or project records and documents, the Contractor shall not be entitled to payment for work for which such information is sought by the Department.*
3. *The Contractor shall incorporate the provisions of this Section as provisions in its contracts with each of their subcontractors.*
- (c) **Termination for Default.** *In the event the Commissioner declares the Contractor in default as provided in Section 108.07, the Department may terminate the Contract in accordance with the following:*
 1. *Upon such termination becoming effective, the Department shall provide written notice to the surety confirming that the Contract is terminated, and that the Department is proceeding to finish the Work as set forth in the Contract performance bond, Form C-*

18a, and the terms and conditions therein. The Department will also take possession of the project site and of all materials purchased for the project thereon. If the expense of completing the Work, including compensation for additional managerial and administrative services, exceeds the unpaid balance of the Contract amount and the penal amount of the Contract performance bond, the Contractor shall pay the difference to the Department, together with any other costs and expenses of terminating the Contract and having it completed by others.

- 2. If it should be judicially determined that the Department's termination for default was improper or in error, then the termination shall be deemed to be a termination for convenience and the Contractor's rights and remedies shall be limited exclusively to those provided under Section 108.08(b).*
- 3. Termination for default as provided herein is in addition to and without prejudice to the Department's other rights or remedies. Any of the Department's actions permitted herein shall not be deemed a waiver of any other right or remedy of the Department under the Contract or under the law. The Department may offset any claims it may have against the Contractor against the amounts due or to become due to the Contractor under any other contract the Contractor may have with the Commonwealth. The provisions of this Section shall survive termination of the Contract.*
- 4. When the Contractor is terminated for default, any claims timely identified in a written notice of intent may be submitted in accordance with provisions of Section 105.19 or the Code of Virginia as amended and as applicable, except that the Contractor shall submit the required claim within 60 days after the Department's notice of termination for default to the Contractor. Failure on the part of the Contractor to submit a claim within such 60-day period shall constitute a waiver and release of such claim.*

108.09—Acceptance

- (a) **Contractor's Responsibility for Work:** Until final acceptance of the work by the Engineer in accordance with the requirements of this Section, the Contractor shall have charge and care thereof and shall take every precaution against damage to any part thereof by action of the elements or from any other cause. The Contractor shall rebuild, repair, restore, and make good on damage to any portion of the work occasioned by any of the foregoing causes before final acceptance and shall bear the expense thereof. The Department may reimburse the Contractor for repair of damage to work attributable to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor as determined by the Engineer.

In case of suspension of work, the Contractor shall be responsible for the project and shall take such precautions as may be necessary to prevent damage to the work, provide for erosion control and drainage, and erect any necessary temporary structures, signs, or other facilities as determined by the Engineer. During the suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established plantings, seedings, and soddings furnished under the Contract and shall take adequate precautions to protect new tree growth and other important vegetation against damage.

- (b) **Partial Acceptance:** If at any time during the prosecution of the project the Contractor completes a unit or portion of the project, such as a structure, an interchange, slopes, pavement, or a section of a roadway in its entirety, he may ask the Engineer to make final

inspection of such work. If the Engineer finds upon inspection that the work conforms to the requirements of the Contract and that acceptance is in the best interest of the public, he may accept the work as being completed, and the Contractor will be relieved of further responsibility for the work. Partial acceptance shall in no way void or alter any terms of the Contract.

If any damage is sustained by an accepted unit or portion of the project attributable to causes beyond the control of the Contractor, the Engineer may authorize the Contractor to make the necessary repairs. These repairs will be paid for at the ~~contract~~ *Contract* price for the items requiring repair. In the absence of ~~contract~~ *Contract* prices covering the items of repair, the *repair* work will be paid for in accordance with the requirements of Section 109.05.

- (c) **Final Acceptance:** Upon receipt of a written notice from the Contractor of presumptive completion of the entire project, the Engineer will make an inspection. If all work specified in the Contract has been completed, the inspection will constitute the final inspection and the Engineer will make the final acceptance. The Contractor will be notified in writing, of the determination of final acceptance within five days of the date of the Engineer's final acceptance.

If the Engineer's inspection discloses that any work, in whole or in part, is incomplete or unacceptable, the Contractor shall immediately correct the deficiency. A written list of deficiencies will be provided to the Contractor by the Engineer. Upon completion or correction of the work, another inspection will be made of the deficient work. If the work is then satisfactory, the Engineer will notify the Contractor in writing within five days of the Engineer's final acceptance. In any event, the Contractor shall be responsible for and maintain the project until final acceptance except under conditions that may be specifically exempted by the Specifications or ~~specific contract language~~ *other Contract Documents*.

108.10—Termination of Contractor's Responsibilities

The Contract will be considered *fully* complete upon final acceptance. The Contractor's responsibility ~~to for the work of the Contract~~ *Work* will then cease except as set forth in his ~~bond~~ *bonds*, and the ~~requirements of Sections 107.12, 109.08 and, 109.10, and other provisions of the Contract Documents that extend the Contractor's responsibility beyond final acceptance.~~

SECTION 109—MEASUREMENT AND PAYMENT

109.01—Measurement of Quantities

- (a) **General.** Work specified in the Contract will be measured by the Engineer in accordance with U.S. Standard Measure. The methods of measurement and computations to be used to determine quantities of material furnished and work performed will be those generally recognized as conforming to good engineering practice.

Specific methods of measurement shall be as indicated in the specific ~~section~~ *Section* for the ~~pay~~ *Contract* item.

Longitudinal measurements for surface area computations will be made along the surface, and transverse measurements will be the surface measure shown on the plans or ordered in

writing by the Engineer. Individual areas of obstructions with a surface area of 9 square feet or less will not be deducted from surface areas measured for payment.

Structures will be measured in accordance with the neat lines shown on the plans.

Items that are measured by the linear foot will be measured parallel to the base or foundation upon which they are placed.

Allowance will not be made for surfaces placed over an area greater than that shown on the plans or for any material moved from outside the area of the cross-section and lines shown on the plans.

When standard manufactured items are specified and are identified by weights or dimensions, such identification will be considered nominal. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.

(a) Measurement by Weight:**** -Materials that are measured or proportioned by weight shall be ~~weighed~~**weighted** on accurate scales as specified in this Section. When material is paid for on a tonnage basis, personnel performing the weighing shall be certified by the Department and shall be bonded to the Commonwealth of Virginia in the amount of \$10,000 for the faithful observance and performance of the duties of the weighperson required herein. The bond shall be executed on a form having the exact wording as the Weighpersons Surety Bond Form furnished by the Department and shall be submitted to the Department prior to the furnishing of the tonnage material. ~~No payment will be made for materials delivered in excess of the legal load limits established for each truck.~~

The Contractor shall have the weighperson perform the following:

- ~~1. Post and furnish a weekly tare weight of each truck used and keep a record of them for 12 months.~~
- 21.** Furnish a signed weigh ticket for each load that shows the date, ~~truck number~~, load number, plant name, size and type of material, project number, schedule or purchase order number, and the weights specified herein.
- 32.** Maintain sufficient documentation so that the ~~accumulative~~**accumulative** tonnage and ~~distribution~~**distribution** of each lot of material, by contract, can be readily identified.
- 43.** Submit by the end of the next working day a summary of the number of loads and total weights for each type of material by contract.

~~Trucks used to haul material being paid for by weight shall display the truck uniform identification number and legal gross and legal net weight limits. These markings shall be no less than 2 inches high and permanently stenciled on each side of the truck with contrasting color and located as to be clearly visible when the vehicle is positioned on the scales and observed from normal position of the weighperson at the scale house.~~

Trucks used to haul material shall be equipped with a cover suitable to protect the material and to protect the traveling public.

The truck tare to be used in the weighing operation shall be the weight of the empty truck determined with full tank(s) of fuel and the operator seated in the cab. The tare weight of trucks shall be recorded to the nearest 20 pounds. At the option of the Contractor, a new

tare may be determined for each load. When a new tare is obtained for each load, the requirement for full tank(s) of fuel will be waived.

Net rail shipment weights may be used for pay quantities when evidenced by railroad bills of lading. However, such weights will not be accepted for pay quantities of materials that subsequently pass through a stationary mixing plant.

Scales shall conform to the requirements for accuracy and sensitivity as set forth in the National Institute of Standards and Technology Handbook No. 44 for Specification Tolerances and Requirements for Commercial and Weighing Devices. Scales used in the weighing of materials paid for on a tonnage basis shall be approved and sealed in accordance with the requirements of the policies of the Bureau of Weights and Measures of the Department of Agriculture and Consumer Services, or other approved agencies, at least once every six months and upon being moved. Hopper and truck scales shall be serviced and tested by a scale service representative at least once every six months. Hopper scales shall be checked with a minimum 500 pounds of test weights and truck scales shall be checked with a minimum 20,000 pounds of test weights.

Copies of scale test reports shall be maintained on file at the scale location for at least 18 months, and copies of all scale service representative test reports shall be forwarded to the Department.

The quantity of materials paid for on a tonnage basis shall be determined on scales equipped with an automatic printer. Truck scale printers shall print the net weight and either the gross or tare weight of each load. Hopper scale printers shall print the net weight of each load. The weigh ticket shall also show the legal gross weight for material weighed on truck scales and the legal net weight for material weighed on hopper scales.

If the automatic printer becomes inoperative, the weighing operation may continue for 48 hours provided satisfactory visual verification of weights can be made. The written permission of the District Materials Engineer shall be required for the operation of scales after 48 hours.

If significant discrepancies are discovered in the printed weight, the ultimate weight for payment will be calculated on volume measurements of the materials in place and unit weights determined by the Engineer or by other methods deemed appropriate to protect the interests of the Commonwealth.

(b) **Measurement by Cubic Yard.** Material that is measured by the cubic yard, loose measurement or vehicular measurement, shall be hauled in approved vehicles and measured therein at the point of delivery. Material measured in vehicles, except streambed gravel, *silt cleanout or other self consolidating material* will be allowed at the rate of 2/3 the volume of the vehicle. The full volume of the vehicle will be allowed for streambed gravel. Such vehicles may be of any size or type acceptable to the Engineer provided the body is of such shape that the actual contents can be readily and accurately determined. Unless all approved vehicles are of uniform capacity, each vehicle shall bear a plainly legible identification mark indicating the specific approved capacity. Each vehicle shall be loaded to at least its water level capacity.

When approved by the Engineer in writing, material specified to be measured by the cubic yard may be weighed and such weights converted to cubic yards for payment purposes. Factors for conversion from weight to volume measurement will be determined by the Engineer and shall be agreed to by the Contractor before they are used.

(ed) **Measurement by Lump Sum:** When used as an item of payment, the term lump sum will mean full payment for completion of work described in the Contract. When a complete structure or structural unit is specified as a ~~pay~~ **Contract** item, the unit of measurement will be lump sum, and shall include all necessary fittings and accessories. The quantities may be shown on the plans for items for which lump sum is the method of measurement. If shown, the quantities are approximate and are shown for estimating purposes only, *and no measurement of quantities will be made for payment.* Items that are to be measured as complete units will be counted by the Inspector in the presence of a representative of the Contractor.

(d)—e) **Measurement for Specific ItemsMaterials:**

1. **Concrete (Measured by Volume Measure):** Concrete will be measured and computed by dividing the work into simple geometrical figures and adding their volumes.
2. **Concrete (Measured by Square or Lineal Measure):** Concrete will be measured and computed by dividing the work into simple geometrical figures and adding their areas or measuring linearly along the item's surface.
3. **Excavation, embankment, and borrow:** In computing volumes of excavation, embankment, and borrow, methods having general acceptance in the engineering profession will be used. When the measurement is based on the cross-sectional area, the average end area method will be used.
4. **Asphalt:** Asphalt will be measured by the gallon, volumetric measurement, based on a temperature of 60 degrees F using the following correction factors:
 - a. 0.00035 per degree F for petroleum oils having a specific gravity 60/60 degrees F above 0.966
 - b. 0.00040 per degree F for petroleum oils having a specific gravity 60/60 degrees F between 0.850 and 0.966
 - c. 0.00025 per degree F for emulsified asphalt

Unless volume correction tables are available, the following formula shall be used in computing the volume of asphalt at temperatures other than 60 degrees F:

$$V^1 = V \times [1 - K(T - 60)]$$

Where:

V = volume of asphalt to be corrected;

V¹ = volume of asphalt at 60 degrees F;

K = correction factor (coefficient of expansion); and

T = temperature in degrees F of asphalt to be corrected.

When asphalt is delivered by weight, the volume at 60 degrees F will be determined by dividing the net weight by the weight per gallon at 60 degrees F.

When specified in the Contract, asphalt will be measured by weight. Net certified scale weights, or weights based on certified volumes in the case of rail shipments, will be used as a basis of measurement, subject to correction when asphalt has been lost from the car or the distributor, disposed of, or otherwise not incorporated in the work.

When asphalt is shipped by truck or transport, net certified weights or volumes subjected to correction for loss or foaming may be used to compute quantities.

Only the quantity of asphalt actually placed in the work and accepted will be considered in determining the amount due the Contractor.

5. **Timber:** Timber will be measured in units of 1,000 foot- board- measure actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.

109.02—Plan Quantities

When specified in the Contract, *Contract* items will be measured and paid for on the basis of plan quantities. The quantities allowed for compensation will be those shown on the plans with deductions from or authorized additions to such quantities resulting from *authorized* deviations from the plans. In the case of excavation, only excavation within the cross-section prism will be paid for on a plan quantity basis.

If the Contractor believes that any plan quantity is incorrect, he may solicit, at his own expense, the aid of a certified Professional Engineer registered in the Commonwealth of Virginia to check the quantity or he may ask the Department in writing to check computations of the quantity. Written requests for a quantity check by the Department shall be accompanied by calculations, drawings, or other evidence indicating why the plan quantity is believed to be in error. If any item of the Contract is found to be in error and so verified by the Engineer, payment will be made in accordance with the corrected plan quantity.

If the Department determines during construction that there is an error in the plan quantity, or that conditions vary from those anticipated in the design to the extent that an actual measurement of a plan quantity item is warranted, the Department will make such measurement and will notify the Contractor, in writing, of the rationale for adjustment. Payment will then be based on the measured quantity in lieu of the plan quantity.

109.03—Scope of Payment

Payments to the Contractor will be made for the *actual* quantities of ~~contract~~*Contract* items performed in accordance with the plans and the requirements of the Specifications- *and other Contract Documents*. If, upon completion of the ~~construction, these~~*Work, the actual* quantities ~~show~~*vary*, either *by* an increase or decrease from the *estimated* quantities shown in the Contract, the ~~contract~~*Contract* unit prices shall prevail and payment will be made for actual quantities performed *at such unit prices*, unless ~~they~~*the unit prices* have been modified by ~~work~~*written change* orders according to Sections 104 and 109.04, as determined by the Engineer.

Quantities appearing on the ~~proposal~~*Proposal* are estimated quantities for the basic design shown on the plans. With the *Engineer's* approval ~~of the Department~~, the Contractor may furnish other design(s) that may involve changes in quantities or the use of different materials. However, payment will be made for the original quantities listed in the Contract only and in the units of measure given in the Contract for the basic design unless the dimensions for the basic design are changed by an authorized ~~modification by work~~*change* order to conform to field conditions encountered. In this event, *the original quantities listed will be* modified ~~plan~~*based on the change in dimension, and the modified* quantities will be used for pay quantities at ~~contract~~*Contract* unit prices for the items listed on the ~~proposal~~*Proposal*.

The Contractor shall accept the compensation provided for in the Contract as full payment for the following:

- (a) ~~furnishing~~*Furnishing* all materials, labor, tools, equipment, and incidentals necessary to complete the ~~work~~*Work according to the Contract*
- (b) ~~performing~~*Performing* all work specified in the Contract
- (c) ~~all~~*All* loss or damage arising from the nature of the ~~work~~*Work* or from action of the elements or any other unforeseen difficulties that may be encountered during prosecution of the ~~work~~*Work* and until its final acceptance
- (d) ~~any~~*Any license, use, or* infringement of *a* patent, trademark, or copyright
- (e) ~~the~~*The* completion of the ~~work~~*Work* in accordance with the requirements of the Contract

If the payment clause in the Specifications relating to any unit price in the Contract requires that the unit price cover and be considered compensation for certain work or material essential to the item, the work or material will not be measured or paid for under any other item except as provided in Section 106.05.

The payment of any partial estimate, *the final estimate*, or any ~~retained percentage prior to final acceptance of the project as provided for in Section 108.09~~*retainage* shall in no way affect the obligation of the Contractor to repair or ~~renew~~*replace* any *unacceptable, unauthorized or* defective parts of the construction ~~work or materials~~, or to be responsible for all damages attributable to such ~~defects~~*unacceptable, unauthorized or defective work or materials*.

109.04—Compensation*Payment for Altered QuantitiesNon-Significant Changes and Additional Units of In-scope Work*

When the accepted quantities of work vary from the estimated quantities set forth in the Contract ~~but such variance is within the percentage limits set forth in Section 104.02~~, whether or not there have been any ~~changes~~*alterations* in the plans, the *quantities of work, or the character of work, the* Contractor shall accept as payment in full, so far as ~~contract~~*Contract* items are concerned, payment at the original ~~contract~~*Contract* unit prices for the accepted quantities of work performed; *except where such variance is a significant change as set forth in Section 104.02*. No allowance or other adjustment except as provided for *a significant change* in Section 104.02 will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor resulting directly from ~~either such alterations or variance, or from the Contractor's~~ unbalanced allocation among the ~~contract~~*Contract* items of overhead expense ~~on the part of the Contractor and subsequent loss of expected reimbursements therefor, or from any other cause except the payment for the actual quantity performed at the original contract unit price.~~

~~Alterations of plans or character of work involving authorized work orders as provided for in Section 104.02 will be paid for in accordance with the requirements of Section 104.02.~~

109.05—

109.05—Payment for Contract Changes

The Department will pay the Contractor for adjustments to the Contract amount based on one of the following methods.

(a) *Payment for Extra and Force Account Work*

The Department may add any ~~new, unforeseen or unanticipated~~ *extra* work that in the judgment of the Engineer is necessary for the satisfactory fulfillment of the Contract within its intended scope. ~~This extra~~ *Extra* work may be accomplished by ~~work~~ *change* order if the scope is defined, *as provided in this Section (a)*, or on a force account basis, if the scope is not defined. ~~Extra work or force account work may be necessitated in accordance with the provisions of Sections 104.02 or 104.03 as applicable. The Engineer will advise the Contractor as provided in writing of the necessity for such extra work at the time of discovery or determination of need.~~ *Section 109.05(b)*. Where possible, the Department and Contractor will each proceed to secure any information, documentation or plans to assist in detailing the extent and character of such work, if known, in sufficient detail to define, analyze and estimate the cost and time required to perform ~~the work~~ *such work*. *Extra work does not include overruns of Contract items according to 104.02.*

A. ~~Work Orders~~

1. *The Engineer may notify the Contractor in writing that extra work is necessary.* When ~~no such notice is given, but~~ the Contractor believes extra work is ~~warranted~~ *necessary*, he shall ~~promptly~~ notify the Engineer in writing within 2 days of such a determination: ~~Should or before performing any such work. If the Engineer agree~~ *agrees* with the ~~Contractor's assessment~~ *Contractor, the Engineer will notify the Contractor that extra work is necessary. Within 7 days of the Engineer notifying the Contractor of extra work then, or within 7 days or such time as mutually decided with the Engineer, the Contractor shall determine submit a proposal that includes a determination of the extent of such work, and detail in his request what the additional compensation and/or time he seeks, if any, relative to his determination. The Contractor's submittal request shall be in sufficient detail to enable the Engineer to determine the basis for and extent of the Contractor's entitlement to additional compensation or time.* Failure on the part of the Contractor to furnish sufficient documentation or to qualify his reason for failure to do so will delay the determination of entitlement for such work. If such delay occurs, it will in no way relieve the Contractor of his obligation to meet the *Contract* time limits or other *Contract* requirements ~~established for the contract or constitute basis for a Contractor to make a delay claim on the part of the Contractor.~~

~~Prior to the actual execution of a work order the Engineer will require the Contractor to provide unit prices for the proposed work, and any requested contract time extension.~~

2. If the Contractor requests a time extension *based on extra work*, the ~~proposed~~ *requested* time extension will only be considered if the ~~work is a controlling work item or affects extra work impacts~~ the critical path for a project milestone or project ~~to the extent that it extends the completion. Any justifiable time extension given must be included at date of the project beyond the lattermost of the time the work order is developed. For projects without a critical path method scheduling specification, the Contract fixed completion date or it's most recent extension. The Contractor shall include submit detailed documents and information on showing how the controlling item of extra work was affected impacted the critical path in accordance with the requirements detailed in that specification. Section 108.04. Any time extension given on a Fixed Date contract, including time extensions in accordance with the requirements of Section 108.04 of the Specifications, must be added to included in the contract by work executed change order.~~

3. Upon receipt and review of the Contractor's costs for the proposed *extra* work, if it is found that the Contractor's prices and/or the time differ considerably from the Department's estimate, the Engineer may request the Contractor to provide support for his ~~unit prices and/or his requested time extension.~~ Where the Department and the Contractor can determine and agree upon an accurate cost and time estimation for the proposed work the Engineer will issue a bilateral work order to authorize the work. When the Contractor and the Department cannot agree upon the cost and/or the time estimation for the extra work after the Engineer's analysis and subsequent discussion with the Contractor, or where due to issues of emergency, safety, environmental damage, other similar critical factors as determined by the Department, the Engineer will act unilaterally and issue a unilateral work order to authorize the work. The issuance of a unilateral work by the Engineer shall in no way invalidate or relinquish the Contractor's rights under the provisions of Section 105.19 *prices and/or his requested time extension.*

B.—(b) Payment by Force Account

The Department will require the Contractor to proceed with ~~additional~~ *extra* work on a force account basis *only* when neither the Department nor the Contractor can firmly establish an applicable *a reliable* estimate for the cost of the *extra* work because the scope of the work is ~~not known~~ *unknown or is of such character that a price cannot be determined to a reasonable degree of accuracy*; that is, the level of effort required to perform and complete the *extra* work is unknown or not quantifiable at the time of discovery or start of the extra work, and will be determined as work progresses. The ~~rates~~ *compensation provided* for labor, equipment and materials to be used in cases of *this Section for force account work applies only to extra work the Engineer orders in writing to be performed on a force account basis will be compensated in the following manner, and does not apply to any other work performed under the Contract or to claims.*

~~(a)~~ *The Contractor shall be paid for all labor, materials, equipment, services, supplies, taxes, overhead, profit and miscellaneous costs or expenses, for extra work performed on a force account basis in the following manner:*

1. **Labor:** Unless otherwise approved, the Contractor will receive the rate of wage or scale as set forth in his most recent payroll for each classification of laborers, forepersons, and superintendent(s) who are in direct charge of the specific operation. The time allowed for payment will be the number of hours such workers are actually engaged in the work. If overtime work is authorized, payment will be at the normal overtime rate set forth in the Contractor's most recent payroll. If workers performing the class of labor needed have not been employed on the project, mutually agreed on rates will be established. However, the rates shall be not less than those predetermined for the project, if applicable. An amount equal to 45 percent of the approved force account payroll will be included in the payment for labor to cover administrative costs, profit, and benefits and/or deductions normally paid by the Contractor.
- ~~(b)~~ 2. **Insurance and Tax:** The Contractor will receive an amount equal to 25 percent of the approved force account payroll exclusive of additives of administrative cost as full compensation for property damage and liability, workers' compensation insurance premiums, unemployment insurance contributions, and social security taxes of force account work.
- ~~(c)~~ 3. **Materials:** The Contractor will receive the actual cost of materials accepted by the Engineer that are delivered and used for the work including taxes, transportation, and

handling charges paid by the Contractor, not including labor and equipment rentals as herein set forth, to which 15 percent of the cost will be added for administration and profit. The Contractor shall make every reasonable effort to take advantage of trade discounts offered by material suppliers. Any discount received shall pass through to the Department. Salvageable temporary construction materials will be retained by the Department, or their appropriate salvage value shall be credited to the Commonwealth, as agreed on by the Department.

~~(d)~~**4. Equipment:** The Contractor shall provide the Engineer a list of all equipment to be used in the work. For each piece of equipment, the list shall include the serial number; date of manufacture; location from which equipment will be transported; and, for rental equipment, the rental rate and name of the company from which it is rented. The Contractor will be paid rental rates for pieces of machinery, equipment, and attachments necessary for prosecution of the work that are approved for use by the Engineer. Equipment rental will be measured by time in hours of actual time engaged in the performance of the work and necessary traveling time of the equipment within the limits of the project or source of supply and the project. Hourly rates will not exceed 1/176 of the monthly rates of the schedule shown in the Rental Rate Blue Book modified in accordance with the Rental Rate Blue Book rate adjustment tables that are current at the time the force account is authorized. ~~Adjustment~~*Equipment rental rates not modified by the adjustment* factors or rate modifications indicated in the Rental Rate Blue Book will not be considered ~~when acceptable rates are determined~~. Hourly rates for equipment on standby, will be at 50 percent of the rate paid for equipment performing work. Operating costs shall not be included in the standby rate. For the purposes herein "standby time" is defined as the period of time equipment ordered to the jobsite by the Engineer is available on-site for the work but is idle for reasons not the fault of the Contractor or normally associated with the efficient and necessary use of that equipment in the overall operation of the work at hand.

Payment will be made for the total hours the equipment is performing work. When equipment is performing work less than 40 hours for any given week and is on standby, payment for standby time will be allowed for up to 40 hours, minus hours performing work. Payment will not be made for the time that equipment is on the project in excess of 24 hours prior to its actual performance in the force account work. An amount equal to the Rental Rate Blue Book estimated operating cost per hour will be paid for all hours the equipment is performing work. This operating cost shall be full compensation for fuel, lubricants, repairs, greasing, fueling, oiling, small tools, and other incidentals. No compensation will be paid for the use of machinery or equipment not authorized by the Engineer.

The Contractor will be paid freight cost covering the moving of equipment to and from the specific force account operation provided such cost is supported by an invoice showing the actual cost to the Contractor. However, such payment will be limited to transportation from the nearest source of available equipment. If equipment is not returned to the nearest equipment storage lot but is moved to another location, the freight cost paid will not exceed the cost of return to the nearest storage lot.

The rates for equipment not listed in the Rental Rate Blue Book schedule shall not exceed the hourly rate being paid for such equipment by the Contractor at the time of the force account authorization. In the absence of such rates, prevailing rates being paid in the area where the authorized work is to be performed shall be used.

If the Contractor does not possess or have readily available equipment necessary for performing the force account work and such equipment is rented from a source other

than a company that is an affiliate of the Contractor, payment will be based on actual invoice rates, to which 15 percent of the invoice cost will be added for administrative cost and profit. If the invoice rate does not include the furnishing of fuel, lubricants, repairs, and servicing, the invoice rate will be converted to an hourly rate, and an amount equal to the Rental Rate Blue Book estimated operating cost per hour will be added for each hour the equipment is performing work.

~~(e)~~ **5. Miscellaneous:** No additional allowance will be made for attachments that are common accessories for equipment as defined in the Rental Rate Blue Book, general superintendents, timekeepers, secretaries, the use of small hand held tools or other costs for which no specific allowance is herein provided. The Contractor will receive compensation equal to the cost of the bond, special railroad insurance premiums, and other additional costs necessary for the specific force account work as determined by the Department. The Contractor shall supply documented evidence of such costs.

~~(f)~~ **6. Compensation:** The compensation as set forth in this Section shall be accepted by the Contractor as payment in full for work performed on a force account basis. At the end of each day, the Contractor's representative and the Inspector shall compare and reconcile records of the hours of work and equipment, labor and materials used in the work as ordered on a force account basis. Such accounting may not include actual costs or labor rates where these are not available but shall be used to verify quantities, types of materials or labor, and number and types of equipment.

If all or a portion of the force account work is performed by an approved subcontractor, the Contractor will be paid 10 percent of the subcontract net force account costs to cover the Contractor's profit and administrative cost. The amount resulting will not be subject to any further additives. The itemized statements of costs as required below shall be submitted on a form that separates the subcontracted portions of the force account labor, materials, and equipment from the other force account costs.

~~(g)~~ **7. Statements:** Payments will not be made for work performed on a force account basis until the Contractor has furnished the Engineer duplicate itemized statements of the cost of such work detailed as follows:

- ~~1~~ **a.** payroll indicating name, classification, date, daily hours, total hours, rate, and extension of each laborer, foreperson, and superintendent
- ~~2~~ **b.** designation, dates, daily hours, total hours, rental rate, and extension for each unit of equipment
- ~~3~~ **c.** quantities of materials, prices, and extensions
- ~~4~~ **d.** transportation of materials

Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his stock; that the quantity claimed was actually used; and that the price, transportation, and handling claimed represented his actual cost.

(c) Payment for Significant Changes

When the Contractor alleges that there is a significant change as defined in Section 104.02, then within 7 days he shall submit a request for the additional compensation, excluding anticipated profits for reduced or eliminated work, for such significant change. The Contractor's request shall be in sufficient detail to enable the Engineer to determine the basis for and extent of the Contractor's entitlement to additional compensation.

Failure on the part of the Contractor to furnish sufficient documentation or to qualify his reason for failure to do so will delay the determination of entitlement to additional compensation. If such delay occurs, it will in no way relieve the Contractor of his obligation to meet milestone dates, the Contract time limit or other Contract requirements, or constitute the basis for a claim of any kind.

(d) Payment for Differing Site Conditions

When the Contractor encounters a differing site condition as defined in Section 104.03, then within 7 days he shall submit a written request for the additional compensation, excluding anticipated profits, he seeks as a result of such condition. The Contractor's request shall be in sufficient detail to enable the Engineer to determine the basis for and extent of the Contractor's entitlement to additional compensation.

Failure on the part of the Contractor to furnish sufficient documentation or to qualify his reason for failure to do so will delay the determination of entitlement to additional compensation. If such delay occurs, it will in no way relieve the Contractor of his obligation to meet the Contract time limits or other Contract requirements or constitute basis for a claim of any kind.

If the Engineer determines that the conditions materially differ and cause an increase or decrease in the cost required for the performance of any of the Work, an adjustment, excluding anticipated profits, will be made and the Contract may be modified accordingly.

(e) Payment for Compensable Delay

The Contractor will be entitled to compensation or damages for a compensable delay, which is an unreasonable delay in performing the Contract, either on his behalf or on behalf of his subcontractor if and to the extent the delay is caused by acts or omissions of the Department, its agents or employees, as provided herein.

When there is a compensable delay, the amount of the Contractor's compensation or damages will be uncertain, difficult and costly to ascertain and verify. Therefore, the Department and the Contractor agree that the liquidated damages as provided herein, shall be the full, entire, and agreed payment for any and all of the Contractor's compensation and damages as a result of a compensable delay, including but not limited to all costs, expenses, damages, business losses, lost profits, consequential damages, or any other delay damages, whether for delay, suspension, inefficiency, disruption, standby, or extended performance.

To request payment for a compensable delay, the Contractor shall within fourteen (14) days after the end date of a delay event, unless directed otherwise in writing by the Engineer, submit a written request for a change order for the Engineer's approval in accordance with Section(s) 108.04. With the request, the Contractor shall submit a SIA and all supporting data to objectively substantiate its request. The Engineer will evaluate the Contractor's SIA and all supporting data to determine entitlement and the amount of liquidated damages in accordance with the following:

1. Field Office Overhead (FOOH)

- a. *FOOH is the extended project field office overhead and site costs and expenses that are not attributable to specific Contract pay items, but are incurred in support of the project as a result of a delay, which include:*
- (1) Extended site supervision costs such as salaries for project field superintendent and administrative staff*
 - (2) Extended site office costs such as utilities, trailers, field office, office equipment, sanitary and toilet facilities*
 - (3) Extended site equipment and tool costs for support equipment and tools that are not used for specific Contract pay items*
- b. *The Contractor is entitled to FOOH only for compensable delays for which the Engineer has granted a Contract time extension. The Contractor is not entitled to additional compensation for FOOH for compensable delays that are caused by extra work performed on a Force Account basis or by increased quantities or by added work required under an approved change order for which the Contractor is paid for any delay as a result of such work.*
- c. *The Contractor's agreed amount of liquidated damages for FOOH shall be based on the project daily FOOH rate derived from the Contractor's Itemized Project FOOH Costs (IPFC) set out on the Department's form. The Contractor shall submit the IPFC form to the Engineer no later than 30 days after the Notice to Proceed date or as approved by the Engineer. On the IPFC form, the Contractor shall list each project FOOH item, the total estimated costs or expenses for each FOOH item for the original Contract time, the total project FOOH, and the project daily FOOH rate based on the total project FOOH divided by the original Contract time. The liquidated damages for FOOH will be calculated as follows:*

$$\begin{array}{ccccc} \text{Daily FOOH} & & \text{No. of Days of} & & \text{Amount of FOOH} \\ \text{Rate} & \times & \text{Compensable Delay} & = & \text{Liquidated Damages} \end{array}$$

2. Home Office Overhead (HOOH)

HOOH is the Contractor's allowable home office overhead costs and expenses that cannot be attributed and are not billed to a particular project, but are incurred in support of all of the Contractor's projects, including but not limited to rent or mortgage, office equipment and furnishings, insurance, office supplies, depreciation, taxes, and utilities, as well as executive salaries, administrative staff salaries, project support staff salaries, and accounting and payroll services.

- a. *The Contractor is entitled to payment of HOOH only for compensable delays for which the Engineer has granted a Contract time extension and only when the Contractor could not reasonably recoup its HOOH while its workforce was idled by the delay because the Contractor was required to remain on standby, ready to resume work, and unable to perform other work at the project or elsewhere during the delay. The Contractor is not entitled to additional compensation for HOOH for compensable delays that are caused by extra work performed on a Force Account basis or by increased quantities or by added work required under an approved change order for which the Contractor is paid for any delay as a result of such work:*

- b. *The agreed amount of liquidated damages for extended or unabsorbed HOOH for a compensable delay will be determined according to the Contract and shall be calculated using the following HOOH equations:*

$$\frac{(A \times C)}{B} = D$$

$$D \times E = F$$

Where:

A = Original total Contract amount

B = Original Contract time (number of calendar days between and inclusive of the Contract Notice to Proceed (NTP) date and the Contract time limit)

C = 4% (Agreed allowable HOOH percentage applied to the original total Contract amount)

D = Daily allowable HOOH rate

E = Number of days of compensable delay

F = Agreed amount of liquidated damages for HOOH

3. ***When Audit to Determine FOOH and HOOH.***

The IPFC and FOOH shall be subject to field verification and Department audit, at any time, as determined by the Engineer if the Engineer determines that the rate the Contractor submits is not an accurate representation of the Contractor's actual FOOH at the time of occurrence of the delay. If the Engineer determines the daily FOOH rate is not an accurate representation of the Contractor's actual FOOH, the Contractor shall submit its actual project FOOH records at the time of occurrence of the delay, as requested by the Engineer. The Department may perform an audit of the Contractor's records as necessary to verify the Contractor's actual project FOOH. Adjustments to the daily FOOH rate may be made upon verification or Department audit of the Contractor's actual project FOOH. The project daily FOOH rate will then be calculated utilizing the rate determined by the audit. The Department may also elect to perform an audit of the Contractor's actual project FOOH at the completion of the Contract, as determined by the Engineer, in which case the project FOOH paid previously by change order may be adjusted based on the rate determined by the audit.

The Contractor's actual extended FOOH are defined to be those costs and expenses incurred from the original Contract time limit to the actual final acceptance of the project as documented by timesheets, payroll records, accounting records, contracts, invoices, bills, receipts, tickets, cancelled checks and similar business records showing the costs and expenses actually incurred for the project field supervision and administrative staff, project field office, and overhead items submitted in accordance with this provision; and the records must be accurate and auditable. Failure to submit the required information shall constitute a waiver of that portion of the delay claim that cannot be verified and shall bar recovery of costs, expenses or damages for that portion of such claim.

If the total sum of the extended project FOOH and unabsorbed or extended HOOH for all approved change orders exceeds 20 percent of the original Contract amount, the Department may at its option calculate the amount of FOOH and HOOH based on a Department audit of the Contractor's actual project FOOH and HOOH records. In

such event, the Department will perform the audit according to Section 103.08 at the Department's expense. The Department audit may begin on 10-days notice to the Contractor, its subcontractors, and suppliers. The Contractor, subcontractors, and suppliers shall make a good faith effort to cooperate with the auditors. Failure to cooperate with the auditors shall constitute a waiver by the Contractor of the FOOH and HOOH portions of any delay claim. Failure of the Contractor, subcontractor, or supplier to maintain and retain sufficient records to allow the Department's auditor to verify the FOOH and HOOH shall constitute a waiver of that portion of any delay claim that cannot be verified.

109.06—Common Carrier Rates

The common carrier rates and taxes thereon that are current on the date of the opening of bids shall be considered applicable to all items subject to transportation charges thereunder. If such rates or taxes are thereafter increased by public authority on any materials entering into and forming a part of the Contract, an amount equal to the sum of all such increases, when evidenced by receipted common carrier bills, will be paid the Contractor by the Department. Requests for such payments shall be made not later than 60 days after final acceptance. If after the date of the opening of bids such rates or taxes are reduced by public authority on any materials entering into and forming a part of the Contract, an amount equal to the sum of all such decreases, when evidenced by receipted common carrier bills, will be deducted by the Department from the monies due the Contractor for the work performed under the Contract.

The carrier rates for petroleum tank truck carriers, as defined in the Code of Virginia, that are in effect on the date of the opening of bids for the project shall be considered effective for at least one year after that date. After one year from that date, the Department will pay the Contractor additional compensation equal to the cost of any carrier rate increases, subject to a maximum of eight percent of the original carrier rate for any materials ordered, delivered, and actually incorporated into the work after the one year period. However, the Contractor shall advise the Engineer in writing of his intent to request additional compensation attributable to carrier rate changes at the time of occurrence and shall submit receipted carrier bills and all relative information concerning the original and current carrier rates as they pertain to the project. If carrier rates are decreased after the one year period, the Department will deduct from monies due the Contractor an amount equal to the cost of any carrier rate decreases, subject to a maximum of eight percent of the original carrier rate, for any materials ordered, delivered, and actually incorporated into the work, based on receipted carrier bills that shall be furnished by the Contractor. On each succeeding year of the Contract, a maximum difference of eight percent of the original rate will be considered for increases or decreases in compensation under these terms and conditions.

Except for the aforementioned carriers, additional compensation attributable to changes in hauling rates of other contract carriers will not be allowed.

109.07—Eliminated Items

If *all or a part of* any ~~item in the Contract~~ *item* is determined to be unnecessary for the proper completion of the ~~work contracted~~ *Work*, the Department may, upon written notice to the Contractor *and issuance of an appropriate change order*, eliminate *all or part of* such item from the Contract. Payment will not be made for such item except that the Contractor will be compensated for the actual cost of any work performed for ~~the installation of~~ such item and the net cost of materials purchased, including freight and tax costs, as evidenced by invoice. No additional compensation will be made for overhead or anticipated profit.

109.08—Partial Payments

(a) General

Partial payments will be based on a monthly progress estimate consisting of approximate quantities and value of work performed as determined by the Engineer. When the method of measurement for a ~~contract~~*Contract* item is in units of each or lump sum, the value of work accomplished for partial payment will be determined on a pro rata basis. Partial payments will be made once each month for the work performed in accordance with the contract requirements. The Contractor will be given the opportunity to review the monthly progress estimate prior to each partial payment. Upon final acceptance, one last monthly estimate will be prepared and any additional payment due will be vouchered for payment.

The monthly progress estimates will be prepared in accordance with the following schedule:

1. ~~1.~~ **Contractor companies whose name begins with the letter A through F:** The monthly progress estimate will be prepared on the 4th day of each month, beginning on the first 4th day following the date of the Contract execution, and on the same day of the succeeding months as the work progresses.
2. ~~2.~~ **Contractor companies whose name begins with the letter G through P:** The monthly progress estimate will be prepared on the 11th day of each month, beginning on the first 11th day following the date of the Contract execution, and on the same day of the succeeding months as the work progresses.
3. ~~3.~~ **Contractor companies whose name begins with the letter Q through Z:** The monthly progress estimate will be prepared on the 20th day of each month, beginning on the first 20th day following the date of the Contract execution, and on the same day of the succeeding months as the work progresses.

For contracts without a payment bond, the Contractor shall submit to the Engineer a letter from each materials supplier and subcontractor involved stating that the Contractor has paid or made satisfactory arrangements for settling all bills for materials and subcontracted work that was paid on the previous month's progress estimate. The Department will use the source of supply letter and approved subletting request to verify that certifications have been received for work that was paid on the previous monthly estimate. The Contractor shall furnish these and other certificates as are required as a prerequisite to the issuance of payment for the current monthly estimate.

The Department may withhold the payment of any partial or final estimate voucher or any sum(s) thereof from such vouchers if the Contractor fails to make payment promptly to all persons supplying equipment, tools, or materials; for any labor he uses in the prosecution of the ~~contract work.~~*Contract work. Unless otherwise provided under the terms of the Contract, interest shall accrue at the rate of one percent per month.*

(b) Payment To ~~Sub-Contractors~~*Subcontractors*

Upon Department payment of the subcontractor's portion of the work as shown on the monthly progress estimate and the receipt of payment by the Contractor for such work, the Contractor shall make compensation in full to the subcontractor. For the purposes of this Section, payment of the subcontractor's portion of the ~~work~~*Work* shall mean that payment has been issued for that portion of the ~~work~~*Work* that was identified on the monthly progress estimate for which the subcontractor has performed service.

Payment to subcontractors shall be in accordance with the provisions of Code of Virginia §§2.2-4354 and 2.2-4355. The Contractor shall ~~make payment in full~~ take one of the following two actions within seven days after receipt of payment from the Department for the subcontractor's portion of the ~~work identified~~ Work as shown on the monthly progress estimate to:

- 1. Pay the subcontractor ~~who~~ for the proportionate share of the total payment received from the agency attributable to the Work performed such work within seven days of by the receipt of payment from subcontractor; or*
- 2. Notify the Department and subcontractor, in ~~accordance~~ writing, of his intention to withhold all or a part of the subcontractor's payment along with the requirements of this Section. ~~If~~ reason for nonpayment.*

In the event payment is not made as required, the Contractor withholds any funds as part of his contract with the subcontractor to ensure satisfactory compliance and completion and the subcontractor achieves satisfactory compliance and completion as verified by payment from the Department to the Contractor, the Contractor shall make full payment ~~shall pay~~ interest at the rate of one percent per month, unless otherwise provided in the Contract, to the subcontractor ~~within seven days~~ on all amounts that remain unpaid after 7 days, except for the amounts withheld as provided in this Section. The Contractor shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower tier subcontractor.

If the Contractor fails to make payment to the subcontractor within the time frame specified herein, the subcontractor shall notify the Engineer and the Contractor's bonding company in writing. The ~~Bonding Company~~ Contractor's bonding company shall be responsible for insuring payment in accordance with the requirements of this Section and Section 107.01.

(c) **Retainage**

~~If during the Engineer's monthly review of the Contractor's progress,~~ If the Engineer determines the Contractor's progress is unsatisfactory in accordance with *according to* the provisions of Section 108.03 or other ~~contract specific criteria~~ *applicable Contract Documents*, the Engineer will send a notice of unsatisfactory progress to the Contractor advising him of such a determination. ~~In addition, this~~ *This* notification will also advise the Contractor that ~~5~~ *five* percent retainage of the monthly progress estimate is being withheld and will continue to be withheld for each month the Contractor's actual progress is determined to be unsatisfactory ~~relative to the criteria stated herein...~~

When the Engineer determines that the Contractor's progress is ~~considered~~ satisfactory in accordance with these requirements, the 5 percent retainage previously withheld because of unsatisfactory progress will be released in the next monthly progress estimate, and the remaining monthly progress estimates ~~payments~~ will be ~~made~~ *paid* in full provided ~~satisfactory~~ *the Contractor's* progress continues to be ~~made~~ *satisfactory*.

109.09—Payment for Material on Hand

When requested in writing by the Contractor, payment allowances may be made for ~~material~~ *materials* secured for use on the project ~~and required to complete the project~~. Such material payments will be *made* for only those actual quantities *of materials* identified in the ~~contract~~ *Contract*, approved

workchange orders, or otherwise **authorized and** documented as required to complete the project and by the Engineer based on delivery tickets, bills of lading, or paid invoices. All such payments shall be in accordance with the following terms and conditions:

- (a) **Structural Units**~~Steel or Reinforcing Steel~~: An allowance of 100 percent of the cost to the Contractor for structural steel ~~or reinforcing steel~~ materials ~~secured~~ for fabrication not to exceed 60 percent of the ~~contract~~Contract price may be made when such material is delivered to the fabricator and has been adequately identified for exclusive use on the project. *The provisions of this section for steel reinforcement will only apply where the quantity of steel reinforcement is identified as a separate and distinct bid item for payment.* An allowance of 100 percent of the cost to the Contractor for superstructure units ~~and reinforcing steel~~, not to exceed 90 percent of the ~~contract~~Contract price, may be made when ~~they have been fabricated~~*fabrication is complete.* Prior to the granting of such allowances, the ~~structural steel~~ materials and fabricated units shall have been tested or certified and found acceptable to the Department and shall have been stored in accordance with the requirements specified herein. Allowances will be based on invoices, *bills*, or ~~bills~~*the estimated value* as approved by the Engineer and will be subject to the retainage requirements of Section 109.08 *of the Specifications.* *For the purposes of this section fabrication is defined as any manufacturing process such as bending, forming, welding, cutting or coating with paint or anti-corrosive materials which alters, converts, or changes raw material for its use in the permanent finished work.*
- (b) **Other Materials**: For ~~reinforcing steel~~, aggregate, pipe, guardrail, signs and sign assemblies, and other nonperishable material, an allowance of 100 percent of the cost to the Contractor for materials, not to exceed 90 percent of the ~~contract~~Contract price, may be made when such material is delivered *to the project* and stockpiled or stored in accordance with the requirements specified herein. Prior to the granting of such allowances, the material shall have been tested and found acceptable to the Department. Allowances will be based on invoices, *bills*, or ~~bills~~*the estimated value of the material* as approved by the Engineer and will be subject to the retainage provisions of Section 109.08 *of the Specifications.*
- (c) **Excluded Items**: -No allowance will be made for ~~cement, seed, plants, fertilizer, and other perishable material~~ and fuels, form lumber, falsework, temporary structures, or other work that will not become an integral part of the finished construction. *Additionally, no allowance will be made for perishable material such as cement, seed, plants, or fertilizer.*
- (d) **Storage**: Material for which payment allowance is requested shall be stored in an approved manner in areas where damage is not likely to occur. If any of the stored materials are lost or become damaged, the Contractor shall repair or replace them: *at no additional cost to the Department. Repair or replacement of such material will not be considered the basis for any extension of Contract time.* If payment allowance has been made prior to such damage or loss, the amount so allowed or a proportionate part thereof will be deducted from the next progress estimate payment and withheld until satisfactory repairs or replacement has been made.

When it is determined to be impractical to store materials within the limits of the project, the Engineer may approve storage on private property or, for structural units *and reinforcing steel*, on the ~~manufacturer~~*manufacturer's* or fabricator's yard. Requests for payment allowance for such *stored* material shall be accompanied by a release from the owner or tenant of such property or yard agreeing to permit the removal of the materials from the property without cost to the Commonwealth. *The Department must be allowed access to the materials for inspection during normal business hours.*

- (e) **Materials Inventory:** If the Contractor requests a payment allowance for properly stored material, he shall submit a certified and itemized inventory statement to the Engineer no earlier than five days and no later than two days prior to the progress estimate date. The statement shall be submitted on forms furnished by the Department and shall be accompanied by *supplier's or manufacturer's* invoices or other documents that will verify the material's cost. Following the initial submission, the Contractor shall submit to the Engineer a monthly-certified update of the itemized inventory statement within the same time frame. -The updated inventory statement shall show additional materials received and stored with invoices or other documents and shall list materials removed from storage since the last certified inventory statement, with appropriate cost data reflecting the change in the inventory. If the Contractor fails to submit the monthly-certified update within the specified time frame, the Engineer will deduct the full amount of the previous statement from the progress estimate.

At the conclusion of the project, the cost of material remaining in storage for which payment allowance has been made will be deducted from the progress estimate.

109.10—Final Payment

When final acceptance has been duly made by the Engineer as provided for in Section 108.09 the Engineer will prepare the final statement of the quantities of the items of work performed. Thereafter, the Contractor will be afforded 10 days in which to review the final estimate before payment. The time may be extended by mutual agreement, and the extension added to the 90-day criteria set forth within this Section.

Prior partial estimates and payments shall be subject to correction in the final estimate and payment.

For Contracts not requiring a payment bond, the Contractor shall certify to the Department that he has paid or made satisfactory arrangements for settling all bills for materials, labor, equipment, supplies, and other items entering into or used on the work and shall furnish other certificates as are required by the Department as a prerequisite to the issuance of final payment.

Failure by the Contractor to provide required information and certifications will extend the 90-day period for final payment by the number of days equivalent to the delay attributable to the Contractor.

Upon review of the final estimate by the Contractor and approval by the Engineer, the Contractor will be paid the entire sum due after previous payments are deducted and other amounts are retained or deducted under the provisions of the Contract. Final payment will become due within 90 ~~calendar~~ days after final acceptance.

~~Upon written request from the Contractor, annual interest~~ *Interest* ~~will be paid~~ *accrue* ~~on the balance that has not been paid due to the fault of~~ *amount* ~~the Department within 90 calendar~~ *owes to the Contractor that remains unpaid after 7 days after final acceptance, following the 90-day payment date.* The rate of interest will be the base rate on corporate loans (prime rate) at large U.S. money center commercial banks as reported daily in The Wall Street Journal. When a split rate is published, the lower of the two rates shall be used. The rate effective on the 91st day following final acceptance will be applicable throughout the period of time for which interest is paid. However, in no event shall the rate of interest paid exceed the rate of interest established pursuant to ~~the Code of Virginia, as amended, § 58.1-1812.~~ The period subject to payment of interest will begin on the 91st calendar day after final acceptance and will extend through the date of the payment of the final estimate.

~~When the payment date is delayed beyond the 90 day period by the fault of the Contractor and monies are due the Commonwealth the Contractor will be assessed annual interest on the balance due the~~

~~Commonwealth for the time delay attributable to the Contractor. The rate of interest will be determined as specified hereinbefore.~~

~~Monies resulting from the~~ *No interest penalty shall be charged when payment is delayed because of disagreement between the Department and the Contractor regarding the quantity, quality or time of delivery of goods or services or the accuracy of any invoice received for the goods or services, or because of Contractor delay. This exception from the interest penalty shall apply only to that portion of a delayed payment that is actually the subject of the disagreement or Contractor delay, and shall apply only for the duration of the disagreement or delay.*

The Department may deduct monies owed to the Commonwealth from the final estimate and payment. If the final payment is insufficient, monies owed to the Commonwealth will become due and payable within 30 days of Contractor's receipt by the Contractor of a certified letter giving notification of the amount owed. The Contractor will be assessed annual interest at the rate determined as specified within this Section for any balance that remains unpaid after 37 days from receipt of the letter.

After final acceptance and prior to final payment, the Contractor may request reimbursement for additional performance and payment bond premiums, but only to the extent that the final ~~contract~~*Contract* amount exceeds the original ~~contract~~*Contract* amount. If the Contractor requests reimbursement on such additional bond premiums the Contractor shall submit to the Department a written request for reimbursement, together with a notarized statement from the surety, or its agent that certifies the Contractor's actual bond premium rate for any increase in the amended ~~contract~~*Contract* amount above the original ~~contract~~*Contract* amount. Such request shall also contain the Contractor's calculation of the additional premium requested for reimbursement as verified by the surety or its agent.

Upon submission of such request from the Contractor, the Department will calculate the additional bond premium payment due the Contractor by multiplying the difference between the final ~~contract~~*Contract* amount, including all ~~work~~*change* orders, overruns, and adjustments, and the original ~~contract~~*Contract* amount, times the percentage bond premium rate provided by the Contractor and certified by the surety or its agent. The additional premium amount will be paid to the Contractor on the final estimate.

